

ZENER DIODES (Axial Lead Type)

TYPE No.	Normal Zener Voltage		Max. Zener Impedance			Max. Reverse Leakage Current		Max. DC Zener Current	Package Outline Drawing No. Please refer to Page: 131~139
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	V	mA	Ohms	Ohms	mA	μA	V	mA	

1 Watt

1N4728A	3.3	76	10	400	1	100	1	276	DO-41(G) (No.: 6)	
1N4729A	3.6	69	10	400	1	100	1	252		
1N4730A	3.9	64	9	400	1	50	1	234		
1N4731A	4.3	58	9	400	1	10	1	217		
1N4732A	4.7	53	8	500	1	10	1	193		
1N4733A	5.1	49	7	550	1	10	1	178		
1N4734A	5.6	45	5	600	1	10	2	162		
1N4735A	6.2	41	2	700	1	10	3	146		
1N4736A	6.8	37	3.5	700	1	10	4	133		
1N4737A	7.5	34	4	700	0.5	10	5	121		
1N4738A	8.2	31	4.5	700	0.5	10	6	110		
1N4739A	9.1	28	5	700	0.5	10	7	100		
1N4740A	10	25	7	700	0.25	10	7.6	91		
1N4741A	11	23	8	700	0.25	5	8.4	83		
1N4742A	12	21	9	700	0.25	5	9.1	76		
1N4743A	13	19	10	700	0.25	5	9.9	69		
1N4744A	15	17	14	700	0.25	5	11.4	61		
1N4745A	16	15.5	16	700	0.25	5	12.2	57		
1N4746A	18	14.0	20	750	0.25	5	13.7	50		
1N4747A	20	12.5	22	750	0.25	5	15.2	45		
1N4748A	22	11.5	23	750	0.25	5	16.7	41		
1N4749A	24	10.5	25	750	0.25	5	18.2	38		
1N4750A	27	9.5	35	750	0.25	5	20.6	34		
1N4751A	30	8.5	40	1000	0.25	5	22.8	30		
1N4752A	33	7.5	45	1000	0.25	5	25.1	27		
1N4753A	36	7.0	50	1000	0.25	5	27.4	25		
1N4754A	39	6.5	60	1000	0.25	5	29.7	23		
1N4755A	43	6.0	70	1500	0.25	5	32.7	22		
1N4756A	47	5.5	80	1500	0.25	5	35.8	19		
1N4757A	51	5.0	95	1500	0.25	5	38.8	18		
1N4758A	56	4.5	110	2000	0.25	5	42.6	16		
1N4759A	62	4.0	125	2000	0.25	5	47.1	14		
1N4760A	68	3.7	150	2000	0.25	5	51.7	13		
1N4761A	75	3.3	175	2000	0.25	5	56.0	12		
1N4762A	82	3.0	200	3000	0.25	5	62.2	11		
1N4763A	91	2.8	250	3000	0.25	5	69.2	10		
1N4764A	100	2.5	350	3000	0.25	5	76.0	9		

NOTE: Suffix "A" indicates $\pm 5\%$ Tolerance.

ZENER DIODES (SMD Type)



TYPE No.	Normal Zener Voltage		Max. Zener Impedance			Max. Reverse Leakage Current		Max. DC Zener Current	Package Outline Drawing No. Please refer to Page: 131~139
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	V	mA	Ohms	Ohms	mA	μA	V	mA	

1 Watt

DL4728A	3.3	76	10	400	1	100	1	276	Melf (DL-41) (No.: 39) 	
DL4729A	3.6	69	10	400	1	100	1	252		
DL4730A	3.9	64	9	400	1	50	1	234		
DL4731A	4.3	58	9	400	1	10	1	217		
DL4732A	4.7	53	8	500	1	10	1	193		
DL4733A	5.1	49	7	550	1	10	1	178		
DL4734A	5.6	45	5	600	1	10	2	162		
DL4735A	6.2	41	2	700	1	10	3	146		
DL4736A	6.8	37	3.5	700	1	10	4	133		
DL4737A	7.5	34	4	700	0.5	10	5	121		
DL4738A	8.2	31	4.5	700	0.5	10	6	110		
DL4739A	9.1	28	5	700	0.5	10	7	100		
DL4740A	10	25	7	700	0.25	10	7.6	91		
DL4741A	11	23	8	700	0.25	5	8.4	83		
DL4742A	12	21	9	700	0.25	5	9.1	76		
DL4743A	13	19	10	700	0.25	5	9.9	69		
DL4744A	15	17	14	700	0.25	5	11.4	61		
DL4745A	16	15.5	16	700	0.25	5	12.2	57		
DL4746A	18	14.0	20	750	0.25	5	13.7	50		
DL4747A	20	12.5	22	750	0.25	5	15.2	45		
DL4748A	22	11.5	23	750	0.25	5	16.7	41		
DL4749A	24	10.5	25	750	0.25	5	18.2	38		
DL4750A	27	9.5	35	750	0.25	5	20.6	34		
DL4751A	30	8.5	40	1000	0.25	5	22.8	30		
DL4752A	33	7.5	45	1000	0.25	5	25.1	27		
DL4753A	36	7.0	50	1000	0.25	5	27.4	25		
DL4754A	39	6.5	60	1000	0.25	5	29.7	23		
DL4755A	43	6.0	70	1500	0.25	5	32.7	22		
DL4756A	47	5.5	80	1500	0.25	5	35.8	19		
DL4757A	51	5.0	95	1500	0.25	5	38.8	18		
DL4758A	56	4.5	110	2000	0.25	5	42.6	16		
DL4759A	62	4.0	125	2000	0.25	5	47.1	14		
DL4760A	68	3.7	150	2000	0.25	5	51.7	13		
DL4761A	75	3.3	175	2000	0.25	5	56.0	12		
DL4762A	82	3.0	200	3000	0.25	5	62.2	11		
DL4763A	91	2.8	250	3000	0.25	5	69.2	10		
DL4764A	100	2.5	350	3000	0.25	5	76.0	9		

NOTE: Suffix "A" indicates $\pm 5\%$ Tolerance.

TYPE No.	Nominal Zener Voltage		Max. Zener Impedance			Max. Reverse Leakage Current		Max. DC Zener Current	Package Outline Drawing No. Please refer to Page: 131~139
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	V	mA	Ohms	Ohms	mA	μA	V	mA	

1 Watt

SMA4728A	3.3	76	10	400	1	100	1	276	SMA (DO-214AC) (No.: 28) 	
SMA4729A	3.6	69	10	400	1	100	1	252		
SMA4730A	3.9	64	9	400	1	50	1	234		
SMA4731A	4.3	58	9	400	1	10	1	217		
SMA4732A	4.7	53	8	500	1	10	1	193		
SMA4733A	5.1	49	7	550	1	10	1	178		
SMA4734A	5.6	45	5	600	1	10	2	162		
SMA4735A	6.2	41	2	700	1	10	3	146		
SMA4736A	6.8	37	3.5	700	1	5	4	133		
SMA4737A	7.5	34	4	700	0.5	5	5	121		
SMA4738A	8.2	31	4.5	700	0.5	5	6	110		
SMA4739A	9.1	28	5	700	0.5	0.5	7	100		
SMA4740A	10	25	7	700	0.25	0.5	7.6	91		
SMA4741A	11	23	8	700	0.25	0.1	8.4	83		
SMA4742A	12	21	9	700	0.25	0.1	9.1	76		
SMA4743A	13	19	10	700	0.25	0.1	9.9	69		
SMA4744A	15	17	14	700	0.25	0.1	11.4	61		
SMA4745A	16	15.5	16	700	0.25	0.1	12.2	57		
SMA4746A	18	14.0	20	750	0.25	0.1	13.7	50		
SMA4747A	20	12.5	22	750	0.25	0.1	15.2	45		
SMA4748A	22	11.5	23	750	0.25	0.1	16.7	41		
SMA4749A	24	10.5	25	750	0.25	0.1	18.2	38		
SMA4750A	27	9.5	35	750	0.25	0.1	20.6	34		
SMA4751A	30	8.5	40	1000	0.25	0.1	22.8	30		
SMA4752A	33	7.5	45	1000	0.25	0.1	25.1	27		
SMA4753A	36	7.0	50	1000	0.25	0.1	27.4	25		
SMA4754A	39	6.5	60	1000	0.25	0.1	29.7	23		
SMA4755A	43	6.0	70	1500	0.25	0.1	32.7	22		
SMA4756A	47	5.5	80	1500	0.25	0.1	35.8	19		
SMA4757A	51	5.0	95	1500	0.25	0.1	38.8	18		
SMA4758A	56	4.5	110	2000	0.25	0.1	42.6	16		
SMA4759A	62	4.0	125	2000	0.25	0.1	47.1	14		
SMA4760A	68	3.7	150	2000	0.25	0.1	51.7	13		
SMA4761A	75	3.3	175	2000	0.25	0.1	56.0	12		
SMA4762A	82	3.0	200	3000	0.25	0.1	62.2	11		
SMA4763A	91	2.8	250	3000	0.25	0.1	69.2	10		
SMA4764A	100	2.5	350	3000	0.25	0.1	76.0	9.0		
SZ1110A	110	2.3	450	4000	0.25	0.1	83.6	8.6		
SZ1120A	120	2.0	550	4500	0.25	0.1	91.2	7.8		
SZ1130A	130	1.9	700	5000	0.25	0.1	98.8	7.0		
SZ1150A	150	1.7	1000	6000	0.25	0.1	114.0	6.4		
SZ1160A	160	1.6	1100	6500	0.25	0.1	121.6	5.8		
SZ1180A	180	1.4	1200	7000	0.25	0.1	136.8	5.2		
SZ1200A	200	1.2	1900	9990	0.25	0.1	152.0	4.7		
SZ1220A	220	1.0	1600	8000	0.25	0.1	167.2	4.0		
SZ1240A	240	0.9	1800	8500	0.25	0.1	182.4	3.8		
SZ1250A	250	0.9	2000	9000	0.25	0.1	190.0	3.6		
SZ1270A	270	0.8	2100	9000	0.25	0.1	205.0	3.3		
SZ1300A	300	0.8	2300	9500	0.25	0.1	228.0	3.0		
SZ1330A	330	0.7	2500	9500	0.25	0.1	250.2	2.7		

NOTE: Suffix "A" indicates $\pm 5\%$ Tolerance.

ZENER DIODES (SMD Type)



TYPE No.	Normal Zener Voltage		Max. Zener Impedance			Max. Reverse Leakage Current		Max. DC Zener Current	Package Outline Drawing No. Please refer to Page: 131~139
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	V	mA	Ohms	Ohms	mA	μA	V	mA	

1 Watt

SMAF4728A	3.3	76	10	400	1	100	1	276	SMAFL (No.: 32)	
SMAF4729A	3.6	69	10	400	1	100	1	252		
SMAF4730A	3.9	64	9	400	1	50	1	234		
SMAF4731A	4.3	58	9	400	1	25	1	217		
SMAF4732A	4.7	53	8	500	1	10	1	193		
SMAF4733A	5.1	49	7	550	1	10	1	178		
SMAF4734A	5.6	45	5	600	1	10	2	162		
SMAF4735A	6.2	41	2	700	1	10	3	146		
SMAF4736A	6.8	37	3.5	700	1	5	4	133		
SMAF4737A	7.5	34	4	700	0.5	5	5	121		
SMAF4738A	8.2	31	4.5	700	0.5	5	6	110		
SMAF4739A	9.1	28	5	700	0.5	0.5	7	100		
SMAF4740A	10	25	7	700	0.25	0.5	7.6	91		
SMAF4741A	11	23	8	700	0.25	0.1	8.4	83		
SMAF4742A	12	21	9	700	0.25	0.1	9.1	76		
SMAF4743A	13	19	10	700	0.25	0.1	9.9	69		
SMAF4744A	15	17	14	700	0.25	0.1	11.4	61		
SMAF4745A	16	15.5	16	700	0.25	0.1	12.2	57		
SMAF4746A	18	14.0	20	700	0.25	0.1	13.7	50		
SMAF4747A	20	12.5	22	750	0.25	0.1	15.2	45		
SMAF4748A	22	11.5	23	750	0.25	0.1	16.7	41		
SMAF4749A	24	10.5	25	750	0.25	0.1	18.2	38		
SMAF4750A	27	9.5	35	750	0.25	0.1	20.6	34		
SMAF4751A	30	8.5	40	1000	0.25	0.1	22.8	30		
SMAF4752A	33	7.5	45	1000	0.25	0.1	25.1	27		
SMAF4753A	36	7.0	50	1000	0.25	0.1	27.4	25		
SMAF4754A	39	6.5	60	1000	0.25	0.1	29.7	23		
SMAF4755A	43	6.0	70	1500	0.25	0.1	32.7	22		
SMAF4756A	47	5.5	80	1500	0.25	0.1	35.8	19		
SMAF4757A	51	5.0	95	1500	0.25	0.1	38.8	18		
SMAF4758A	56	4.5	110	2000	0.25	0.1	42.6	16		
SMAF4759A	62	4.0	125	2000	0.25	0.1	47.1	14		
SMAF4760A	68	3.7	150	2000	0.25	0.1	51.7	13		
SMAF4761A	75	3.3	175	2000	0.25	0.1	56.0	12		
SMAF4762A	82	3.0	200	3000	0.25	0.1	62.2	11		
SMAF4763A	91	2.8	250	3000	0.25	0.1	69.2	10		
SMAF4764A	100	2.5	350	3000	0.25	0.1	76	9.0		
SMAF4765A	110	2.3	450	4000	0.25	0.1	84	8.6		
SMAF4766A	120	2.0	550	4500	0.25	0.1	91	7.8		
SMAF4767A	130	1.9	700	5000	0.25	0.1	100	7.0		
SMAF4768A	150	1.7	1000	6000	0.25	0.1	110	6.4		
SMAF4769A	160	1.6	1100	6500	0.25	0.1	120	5.8		
SMAF4770A	180	1.4	1200	7000	0.25	0.1	135	5.2		
SMAF4771A	200	1.2	1400	9990	0.25	0.1	150	4.7		
SMAF4772A	220	1.0	1600	8000	0.25	0.1	165	4.0		
SMAF4773A	240	0.9	1800	8500	0.25	0.1	180	3.8		
SMAF4774A	250	0.9	2000	9000	0.25	0.1	190	3.6		
SMAF4775A	270	0.8	2100	9000	0.25	0.1	205	3.3		
SMAF4776A	300	0.8	2300	9500	0.25	0.1	230	3.0		
SMAF4777A	330	0.7	2500	9500	0.25	0.1	250	2.7		

NOTE: Suffix "A" indicates ±5% Tolerance.

TYPE No.	Normal Zener Voltage		Max. Zener Impedance			Max. Reverse Leakage Current		Max. DC Zener Current	Package Outline Drawing No. Please refer to Page: 131~139
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	V	mA	Ohms	Ohms	mA	μA	V	mA	

1 Watt

DZL4728A	3.3	76	10	400	1	100	1	285	SOD-123FL (No.: 16)	
DZL4729A	3.6	69	10	400	1	100	1	263		
DZL4730A	3.9	64	9	400	1	50	1	243		
DZL4731A	4.3	58	9	400	1	10	1	219		
DZL4732A	4.7	53	8	500	1	10	1	203		
DZL4733A	5.1	49	7	550	1	10	1	186		
DZL4734A	5.6	45	5	600	1	10	1	170		
DZL4735A	6.2	41	2	700	1	10	3	146		
DZL4736A	6.8	37	3.5	700	1	5	4	133		
DZL4737A	7.5	34	4.0	700	0.5	5	5	121		
DZL4738A	8.2	31	4.5	700	0.5	5	6	110		
DZL4739A	9.1	28	5.0	700	0.5	0.5	7	100		
DZL4740A	10	25	7.0	700	0.25	0.5	7.6	91		
DZL4741A	11	23	8.0	700	0.25	0.1	8.4	83		
DZL4742A	12	21	9.0	700	0.25	0.1	9.1	76		
DZL4743A	13	19	10	700	0.25	0.1	9.9	69		
DZL4744A	15	17	14	700	0.25	0.1	11.4	61		
DZL4745A	16	15.5	16	700	0.25	0.1	12.2	57		
DZL4746A	18	14.0	20	700	0.25	0.1	13.7	50		
DZL4747A	20	12.5	22	750	0.25	0.1	15.2	45		
DZL4748A	22	11.5	23	750	0.25	0.1	16.7	41		
DZL4749A	24	10.5	25	750	0.25	0.1	18.2	38		
DZL4750A	27	9.5	35	750	0.25	0.1	20.6	34		
DZL4751A	30	8.5	40	1000	0.25	0.1	22.8	30		
DZL4752A	33	7.5	45	1000	0.25	0.1	25.1	27		
DZL4753A	36	7.0	50	1000	0.25	0.1	27.4	25		
DZL4754A	39	6.5	60	1000	0.25	0.1	29.7	23		
DZL4755A	43	6.0	70	1500	0.25	0.1	32.7	22		
DZL4756A	47	5.5	80	1500	0.25	0.1	35.8	19		
DZL4757A	51	5.0	95	1500	0.25	0.1	38.8	18		
DZL4758A	56	4.5	110	2000	0.25	0.1	42.6	16		
DZL4759A	62	4.0	125	2000	0.25	0.1	47.1	14		
DZL4760A	68	3.7	150	2000	0.25	0.1	51.7	13		
DZL4761A	75	3.3	175	2000	0.25	0.1	56.0	12		
DZL4762A	82	3.0	200	3000	0.25	0.1	62.2	11		
DZL4763A	91	2.8	250	3000	0.25	0.1	69.2	10		
DZL4764A	100	2.5	350	3000	0.25	0.1	76.0	9.0		
DZL1110A	110	2.3	450	4000	0.25	0.1	83.6	8.6		
DZL1120A	120	2.0	550	4500	0.25	0.1	91.2	7.8		
DZL1130A	130	1.9	700	5000	0.25	0.1	98.8	7.0		
DZL1150A	150	1.7	1000	6000	0.25	0.1	114.0	6.4		
DZL1160A	160	1.6	1100	6500	0.25	0.1	121.6	5.8		
DZL1180A	180	1.4	1200	7000	0.25	0.1	136.8	5.2		
DZL1200A	200	1.2	1900	9990	0.25	0.1	152.0	4.7		
DZL1220A	220	1.0	1600	8000	0.25	0.1	167.2	4.0		
DZL1240A	240	0.9	1800	8500	0.25	0.1	182.4	3.8		
DZL1250A	250	0.9	2000	9000	0.25	0.1	190.0	3.6		
DZL1270A	270	0.8	2100	9000	0.25	0.1	205.0	3.3		
DZL1300A	300	0.8	2300	9500	0.25	0.1	228.0	3.0		
DZL1330A	330	0.7	2500	9500	0.25	0.1	250.2	2.7		

NOTE: Suffix "A" indicates ±5% Tolerance.

ZENER DIODES (SMD Type)



TYPE No.	Normal Zener Voltage		Max. Zener Impedance			Max. Reverse Leakage Current		Max. DC Zener Current	Package Outline Drawing No. Please refer to Page: 131~139
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	V	mA	Ohms	Ohms	mA	μA	V	mA	

1 Watt

MMSZ4735A	6.2	41	2.0	700	1	10	3.0	146	SOD-123 (No.: 13)	
MMSZ4736A	6.8	37	3.5	700	1	5	4.0	133		
MMSZ4737A	7.5	34	4.0	700	0.5	5	5.0	121		
MMSZ4738A	8.2	31	4.5	700	0.5	5	6.0	110		
MMSZ4739A	9.1	28	5.0	700	0.5	0.5	7.0	100		
MMSZ4740A	10	25	7.0	700	0.25	0.5	7.6	91		
MMSZ4741A	11	23	8.0	700	0.25	0.1	8.4	83		
MMSZ4742A	12	21	9.0	700	0.25	0.1	9.1	76		
MMSZ4743A	13	19	10	700	0.25	0.1	9.9	69		
MMSZ4744A	15	17	14	700	0.25	0.1	11.4	61		
MMSZ4745A	16	15.5	16	700	0.25	0.1	12.2	57		
MMSZ4746A	18	14.0	20	750	0.25	0.1	13.7	50		
MMSZ4747A	20	12.5	22	750	0.25	0.1	15.2	45		
MMSZ4748A	22	11.5	23	750	0.25	0.1	16.7	41		
MMSZ4749A	24	10.5	25	750	0.25	0.1	18.2	38		
MMSZ4750A	27	9.5	35	750	0.25	0.1	20.6	34		
MMSZ4751A	30	8.5	40	1000	0.25	0.1	22.8	30		
MMSZ4752A	33	7.5	45	1000	0.25	0.1	25.1	27		
MMSZ4753A	36	7.0	50	1000	0.25	0.1	27.4	25		
MMSZ4754A	39	6.5	60	1000	0.25	0.1	29.7	23		
MMSZ4755A	43	6.0	70	1500	0.25	0.1	32.7	22		
MMSZ4756A	47	5.5	80	1500	0.25	0.1	35.8	19		
MMSZ4757A	51	5.0	95	1500	0.25	0.1	38.8	18		
MMSZ4758A	56	4.5	110	2000	0.25	0.1	42.6	16		
MMSZ4759A	62	4.0	125	2000	0.25	0.1	47.1	14		
MMSZ4760A	68	3.7	150	2000	0.25	0.1	51.7	13		
MMSZ4761A	75	3.3	175	2000	0.25	0.1	56.0	12		
MMSZ4762A	82	3.0	200	3000	0.25	0.1	62.2	11		
MMSZ4763A	91	2.8	250	3000	0.25	0.1	69.2	10		
MMSZ4764A	100	2.5	350	3000	0.25	0.1	76.0	9.0		
MMSZ1110A	110	2.3	450	4000	0.25	0.1	83.6	8.6		
MMSZ1120A	120	2.0	550	4500	0.25	0.1	91.2	7.8		
MMSZ1130A	130	1.9	700	5000	0.25	0.1	98.8	7.0		
MMSZ1150A	150	1.7	1000	6000	0.25	0.1	114.0	6.4		
MMSZ1160A	160	1.6	1100	6500	0.25	0.1	121.6	5.8		
MMSZ1180A	180	1.4	1200	7000	0.25	0.1	136.8	5.2		
MMSZ1200A	200	1.2	1900	9990	0.25	0.1	152.0	4.7		

NOTE: Suffix "A" indicates $\pm 5\%$ Tolerance.

ZENER DIODES (Axial Lead Type)

TYPE No.	Normal Zener Voltage		Max. Zener Impedance			Max. Reverse Leakage Current		Max. DC Zener Current	Package Outline Drawing No. Please refer to Page: 131~139
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	V	mA	Ohms	Ohms	mA	μA	V	mA	

1 Watt

1EZ6.2	6.2	41	2.0	700	1	10	3	146	DO-41 (No.: 3) 	
1EZ6.8	6.8	37	3.5	700	1	5	4	133		
1EZ7.5	7.5	34	4.0	700	0.5	5	5	121		
1EZ8.2	8.2	31	4.5	700	0.5	5	6	110		
1EZ9.1	9.1	28	5.0	700	0.5	0.5	7	100		
1EZ10	10	25	7.0	700	0.25	0.5	7.6	91		
1EZ11	11	23	8.0	700	0.25	0.1	8.4	83		
1EZ12	12	21	9.0	700	0.25	0.1	9.1	76		
1EZ13	13	19	10	700	0.25	0.1	9.9	69		
1EZ15	15	17	14	700	0.25	0.1	11.4	61		
1EZ16	16	15.5	16	700	0.25	0.1	12.2	57		
1EZ18	18	14.0	20	750	0.25	0.1	13.7	50		
1EZ20	20	12.5	22	750	0.25	0.1	15.2	45		
1EZ22	22	11.5	23	750	0.25	0.1	16.7	41		
1EZ24	24	10.5	25	750	0.25	0.1	18.2	38		
1EZ27	27	9.5	35	750	0.25	0.1	20.6	34		
1EZ30	30	8.5	40	1000	0.25	0.1	22.8	30		
1EZ33	33	7.5	45	1000	0.25	0.1	25.1	27		
1EZ36	36	7.0	50	1000	0.25	0.1	27.4	25		
1EZ39	39	6.5	60	1000	0.25	0.1	29.7	23		
1EZ43	43	6.0	70	1500	0.25	0.1	32.7	22		
1EZ47	47	5.5	80	1500	0.25	0.1	35.8	19		
1EZ51	51	5.0	95	1500	0.25	0.1	38.8	18		
1EZ56	56	4.5	110	2000	0.25	0.1	42.6	16		
1EZ62	62	4.0	125	2000	0.25	0.1	47.1	14		
1EZ68	68	3.7	150	2000	0.25	0.1	51.7	13		
1EZ75	75	3.3	175	2000	0.25	0.1	56.0	12		
1EZ82	82	3.0	200	3000	0.25	0.1	62.2	11		
1EZ91	91	2.8	250	3000	0.25	0.1	69.2	10		
1EZ100	100	2.5	350	3000	0.25	0.1	76.0	9.0		
1EZ110	110	2.3	450	4000	0.25	0.1	83.6	8.6		
1EZ120	120	2.0	550	4500	0.25	0.1	91.2	7.8		
1EZ130	130	1.9	700	5000	0.25	0.1	98.8	7.0		
1EZ150	150	1.7	1000	6000	0.25	0.1	114.0	6.4		
1EZ160	160	1.6	1100	6500	0.25	0.1	121.6	5.8		
1EZ180	180	1.4	1200	7000	0.25	0.1	136.8	5.2		
1EZ200	200	1.2	1900	9990	0.25	0.1	152.0	4.7		
1EZ220	220	1.0	1600	8000	0.25	0.1	167.2	4.0		
1EZ240	240	0.9	1800	8500	0.25	0.1	182.4	3.8		
1EZ250	250	0.9	2000	9000	0.25	0.1	190.0	3.6		
1EZ270	270	0.8	2100	9000	0.25	0.1	205.0	3.3		
1EZ300	300	0.8	2300	9500	0.25	0.1	228.0	3.0		
1EZ330	330	0.7	2500	9500	0.25	0.1	250.2	2.7		

NOTE: 1. Normal Tolerance $\pm 5\%$.

ZENER DIODES

(SMD Type & Axial Lead Type)



TYPE No.	Normal Zener Voltage		Max. Zener Impedance			Max. Reverse Leakage Current		Max. DC Zener Current	Package Outline Drawing No. Please refer to Page: 131~139
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	V	mA	Ohms	Ohms	mA	μA	V	mA	

1.5 Watt (DO-41 / SMA / SMB)

1N5920B	6.2	60.5	2.0	200	1	2.5	4.0	240	DO-41 (No.: 3) / SMA (DO-214AC)* (No.: 28) / SMB (DO-214AA)* (No.: 29)   	
1N5921B	6.8	55.1	2.5	200	1	2.5	5.2	220		
1N5922B	7.5	50.0	3.0	400	0.5	2.5	6.0	200		
1N5923B	8.2	45.7	3.5	400	0.5	2.5	6.5	182		
1N5924B	9.1	41.2	4.0	500	0.5	2.5	7.0	164		
1N5925B	10	37.5	4.5	500	0.25	2.5	8.0	150		
1N5926B	11	34.1	5.5	550	0.25	0.5	8.4	136		
1N5927B	12	31.2	6.5	550	0.25	0.5	9.1	125		
1N5928B	13	28.8	7.0	550	0.25	0.5	9.9	115		
1N5929B	15	25.0	9.0	600	0.25	0.5	11.4	100		
1N5930B	16	23.4	10.0	600	0.25	0.5	12.2	93		
1N5931B	18	20.8	12.0	650	0.25	0.5	13.7	83		
1N5932B	20	18.7	14.0	650	0.25	0.5	15.2	75		
1N5933B	22	17.0	17.5	650	0.25	0.5	16.7	68		
1N5934B	24	15.6	19	700	0.25	0.5	18.2	62		
1N5935B	27	13.9	23	700	0.25	0.5	20.6	55		
1N5936B	30	12.5	26	750	0.25	0.5	22.8	50		
1N5937B	33	11.4	33	800	0.25	0.5	25.1	45		
1N5938B	36	10.4	38	850	0.25	0.5	27.4	41		
1N5939B	39	9.6	45	900	0.25	0.5	29.7	38		
1N5940B	43	8.7	53	950	0.25	0.5	32.7	34		
1N5941B	47	8.0	67	1000	0.25	0.5	35.8	31		
1N5942B	51	7.3	70	1100	0.25	0.5	38.8	29		
1N5943B	56	6.7	86	1300	0.25	0.5	42.6	26		
1N5944B	62	6.0	100	1500	0.25	0.5	47.1	24		
1N5945B	68	5.5	120	1700	0.25	0.5	51.7	22		
1N5946B	75	5.0	140	2000	0.25	0.5	56.0	20		
1N5947B	82	4.6	160	2500	0.25	0.5	62.2	18		
1N5948B	91	4.1	200	3000	0.25	0.5	69.2	16		
1N5949B	100	3.7	250	3100	0.25	0.5	76.0	15		
1N5950B	110	3.4	300	4000	0.25	0.5	83.6	13		
1N5951B	120	3.1	380	4500	0.25	0.5	91.2	12		
1N5952B	130	2.9	450	5000	0.25	0.5	98.8	11		
1N5953B	150	2.5	600	6000	0.25	0.5	114.0	10		
1N5954B	160	2.3	700	6500	0.25	0.5	121.6	9		
1N5955B	180	2.1	900	7000	0.25	0.5	136.8	8		
1N5956B	200	1.9	1900	8000	0.25	0.5	152.0	7		

NOTE: 1. Suffix "B" indicates $\pm 5\%$ Tolerance.

2. * Prefix "SMA" stands for "SMA (DO-214AC)" package. (e.g.: **SMA**5920B, **SMA**5956B,...etc.)

* Prefix "SMB" stands for "SMB (DO-214AA)" package. (e.g.: **SMB**5920B, **SMB**5956B,...etc.)

ZENER DIODES

(SMD Type & Axial Lead Type)

TYPE No.	Normal Zener Voltage		Max. Zener Impedance			Max. Reverse Leakage Current		Max. DC Zener Current	Package Outline Drawing No. Please refer to Page: 131~139
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	V	mA	Ohms	Ohms	mA	μA	V	mA	

2 Watt (DO-15 / SMA / SMB)

2EZ6.2	6.2	80.5	1.5	700	1	5	3.0	292	DO-15 (No.: 4) / SMA (DO-214AC)* (No.: 28) / SMB (DO-214AA)* (No.: 29)	  
2EZ6.8	6.8	73.5	2.0	700	1	50	4.0	266		
2EZ7.5	7.5	66.5	2.0	700	0.5	50	5.0	242		
2EZ8.2	8.2	61.0	2.3	700	0.5	50	6.0	220		
2EZ9.1	9.1	55.0	2.5	700	0.5	50	7.0	200		
2EZ10	10	50.0	3.5	700	0.25	50	7.6	182		
2EZ11	11	45.5	4.0	700	0.25	50	8.4	166		
2EZ12	12	41.5	4.5	700	0.25	1	9.1	152		
2EZ13	13	38.5	5.0	700	0.25	0.5	9.9	138		
2EZ14	14	35.7	5.5	700	0.25	0.5	10.6	130		
2EZ15	15	33.4	7.0	700	0.25	0.5	11.4	122		
2EZ16	16	31.2	8.0	700	0.25	0.5	12.2	114		
2EZ17	17	29.4	9.0	750	0.25	0.5	13.0	107		
2EZ18	18	27.8	10	750	0.25	0.5	13.7	100		
2EZ19	19	26.3	11	750	0.25	0.5	14.4	95		
2EZ20	20	25.0	11	750	0.25	0.5	15.2	90		
2EZ22	22	22.8	12	750	0.25	0.5	16.7	82		
2EZ24	24	20.8	13	750	0.25	0.5	18.2	76		
2EZ27	27	18.5	18	750	0.25	0.5	20.6	68		
2EZ30	30	16.6	20	1000	0.25	0.5	22.5	60		
2EZ33	33	15.1	23	1000	0.25	0.5	25.1	55		
2EZ36	36	13.9	25	1000	0.25	0.5	27.4	50		
2EZ39	39	12.8	30	1000	0.25	0.5	29.7	47		
2EZ43	43	11.6	35	1500	0.25	0.5	32.7	43		
2EZ47	47	10.6	40	1500	0.25	0.5	35.8	39		
2EZ51	51	9.8	48	1500	0.25	0.5	38.8	36		
2EZ56	56	9.0	55	2000	0.25	0.5	42.6	32		
2EZ62	62	8.1	60	2000	0.25	0.5	47.1	29		
2EZ68	68	7.4	75	2000	0.25	0.5	51.7	27		
2EZ75	75	6.7	90	2000	0.25	0.5	56.0	24		
2EZ82	82	6.1	100	3000	0.25	0.5	62.2	22		
2EZ91	91	5.5	125	3000	0.25	0.5	69.2	20		
2EZ100	100	5.0	175	3000	0.25	0.5	76.0	18		
2EZ110	110	4.5	250	4000	0.25	0.5	83.6	17		
2EZ120	120	4.2	325	4500	0.25	0.5	91.2	15		
2EZ130	130	3.8	400	5000	0.25	0.5	98.8	14		
2EZ140	140	3.6	500	5500	0.25	0.5	106.4	13		
2EZ150	150	3.3	575	6000	0.25	0.5	114.0	12		
2EZ160	160	3.1	650	6500	0.25	0.5	121.6	11		
2EZ170	170	2.9	675	7000	0.25	0.5	130.4	11		
2EZ180	180	2.8	725	7000	0.25	0.5	136.8	10		
2EZ190	190	2.6	825	8000	0.25	0.5	144.8	10		
2EZ200	200	2.5	1900	9990	0.25	0.5	152.0	9.0		
2EZ220	220	2.0	2000	8500	0.25	0.5	167.0	8.0		
2EZ270	270	1.6	2200	8500	0.25	0.5	205.0	6.7		
2EZ300	300	1.5	2200	9000	0.25	0.5	228.0	5.9		
2EZ330	330	1.4	2300	9000	0.25	0.5	250.0	5.4		

NOTE: 1. Normal Tolerance $\pm 5\%$

2. * Prefix "SMA" stands for "SMA (DO-214AC)" package. (e.g.: **SMA**2EZ6.2, **SMA**2EZ330,...etc.)

* Prefix "SMB" stands for "SMB (DO-214AA)" package. (e.g.: **SMB**2EZ6.2, **SMB**2EZ330,...etc.)

ZENER DIODES

(SMD Type & Axial Lead Type)



TYPE No.	Normal Zener Voltage		Max. Zener Impedance			Max. Reverse Leakage Current		Max. DC Zener Current	Package Outline Drawing No. Please refer to Page: 131~139
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	V	mA	Ohms	Ohms	mA	μA	V	mA	

3 Watt (DO-15 / SMA / SMB)

3EZ6.2	6.2	121	1.5	700	1	5	3.0	435	DO-15 (No.: 4) / SMA (DO-214AC)* (No.: 28) / SMB (DO-214AA)* (No.: 29)	  
3EZ6.8	6.8	110	2.0	700	1	50	4.0	393		
3EZ7.5	7.5	100	2.0	700	0.5	50	5.0	360		
3EZ8.2	8.2	91	2.3	700	0.5	50	6.0	330		
3EZ9.1	9.1	82	2.5	700	0.5	50	7.0	297		
3EZ10	10	75	3.5	700	0.25	50	7.6	270		
3EZ11	11	68	4.0	700	0.25	50	8.4	225		
3EZ12	12	63	4.5	700	0.25	1	9.1	246		
3EZ13	13	58	4.5	700	0.25	0.5	9.9	208		
3EZ14	14	53	5.0	700	0.25	0.5	10.6	193		
3EZ15	15	50	5.5	700	0.25	0.5	11.4	180		
3EZ16	16	47	5.5	700	0.25	0.5	12.2	169		
3EZ17	17	44	6.0	750	0.25	0.5	13.0	159		
3EZ18	18	42	6.0	750	0.25	0.5	13.7	150		
3EZ19	19	40	7.0	750	0.25	0.5	14.4	142		
3EZ20	20	37	7.0	750	0.25	0.5	15.2	135		
3EZ22	22	34	8.0	750	0.25	0.5	16.7	123		
3EZ24	24	31	9.0	750	0.25	0.5	18.2	112		
3EZ27	27	28	10	750	0.25	0.5	20.6	100		
3EZ28	28	27	12	750	0.25	0.5	21.0	96		
3EZ30	30	25	16	1000	0.25	0.5	22.5	90		
3EZ33	33	23	20	1000	0.25	0.5	25.1	82		
2EZ36	36	21	22	1000	0.25	0.5	27.4	75		
3EZ39	39	19	28	1000	0.25	0.5	29.7	69		
3EZ43	43	17	33	1500	0.25	0.5	32.7	63		
3EZ47	47	16	38	1500	0.25	0.5	35.6	57		
3EZ51	51	15	45	1500	0.25	0.5	38.8	53		
3EZ56	56	13	50	2000	0.25	0.5	42.6	48		
3EZ62	62	12	55	2000	0.25	0.5	47.1	44		
3EZ68	68	11	70	2000	0.25	0.5	51.7	40		
3EZ75	75	10	85	2000	0.25	0.5	56.0	36		
3EZ82	82	9.1	95	3000	0.25	0.5	62.2	33		
3EZ91	91	8.2	115	3000	0.25	0.5	69.2	30		
3EZ100	100	7.5	160	3000	0.25	0.5	76.0	27		
3EZ110	110	6.8	225	4000	0.25	0.5	83.6	25		
3EZ120	120	6.3	300	4500	0.25	0.5	91.2	22		
3EZ130	130	5.8	375	5000	0.25	0.5	98.8	21		
3EZ140	140	5.3	475	5000	0.25	0.5	106.4	19		
3EZ150	150	5.0	550	6000	0.25	0.5	114.0	18		
3EZ160	160	4.7	625	6500	0.25	0.5	121.6	17		
3EZ170	170	4.4	650	7000	0.25	0.5	130.4	16		
3EZ180	180	4.2	700	7000	0.25	0.5	136.8	15		
3EZ190	190	4.0	800	8000	0.25	0.5	144.8	14		
3EZ200	200	3.7	875	8000	0.25	0.5	152.0	13		

NOTE: 1. Normal Tolerance $\pm 5\%$

2. * Prefix "**SMA**" stands for "SMA (DO-214AC)" package. (e.g.: **SMA**3EZ6.2, **SMA**3EZ200,...etc.)

* Prefix "**SMB**" stands for "SMB (DO-214AA)" package. (e.g.: **SMB**3EZ6.2, **SMB**3EZ200,...etc.)

ZENER DIODES

(SMD Type & Axial Lead Type)

TYPE No.	Normal Zener Voltage		Max. Zener Impedance			Max. Reverse Leakage Current		Max. DC Zener Current	Package Outline Drawing No. Please refer to Page: 131~139
	$V_Z @ I_{ZT}$		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}	
	V	mA	Ohms	Ohms	mA	μA	V	mA	

5 Watt (DO-201AE / SMB / SMC)

1N5341B	6.2	200	1.0	200	1	1	3.0	765	DO-201AE (No.: 5) / SMB (DO-214AA)* (No.: 29) / SMC (DO-214AB)* (No.: 30)   
1N5342B	6.8	175	1.0	200	1	10	5.2	700	
1N5343B	7.5	175	1.5	200	1	10	5.7	630	
1N5344B	8.2	150	1.5	200	1	10	6.2	580	
1N5345B	8.7	150	2.0	200	1	10	6.6	545	
1N5346B	9.1	150	2.0	150	1	7.5	6.9	520	
1N5347B	10	125	2.0	125	1	5.0	7.6	475	
1N5348B	11	125	2.5	125	1	5.0	8.4	430	
1N5349B	12	100	2.5	125	1	2.0	9.1	395	
1N5350B	13	100	2.5	100	1	1.0	9.9	365	
1N5351B	14	100	2.5	75	1	1.0	10.6	340	
1N5352B	15	75	2.5	75	1	1.0	11.5	315	
1N5353B	16	75	2.5	75	1	1.0	12.2	295	
1N5354B	17	70	2.5	75	1	0.5	12.9	280	
1N5355B	18	65	2.5	75	1	0.5	13.7	265	
1N5356B	19	65	3.0	75	1	0.5	14.4	250	
1N5357B	20	65	3.0	75	1	0.5	15.2	237	
1N5358B	22	50	3.5	75	1	0.5	16.7	216	
1N5359B	24	50	3.5	100	1	0.5	18.2	198	
1N5360B	25	50	4.0	110	1	0.5	19.0	190	
1N5361B	27	50	5.0	120	1	0.5	20.6	176	
1N5362B	28	50	6.0	130	1	0.5	21.2	170	
1N5363B	30	40	8.0	140	1	0.5	22.8	158	
1N5364B	33	40	10	150	1	0.5	25.1	144	
1N5365B	36	30	11	160	1	0.5	27.4	132	
1N5366B	39	30	14	170	1	0.5	29.7	122	
1N5367B	43	30	20	190	1	0.5	32.7	110	
1N5368B	47	25	25	210	1	0.5	35.8	100	
1N5369B	51	25	27	230	1	0.5	38.8	93	
1N5370B	56	20	35	280	1	0.5	42.6	86	
1N5371B	60	20	40	350	1	0.5	42.5	79	
1N5372B	62	20	42	400	1	0.5	47.1	76	
1N5373B	68	20	44	500	1	0.5	51.7	70	
1N5374B	75	20	45	620	1	0.5	56.0	63	
1N5375B	82	15	65	720	1	0.5	62.2	58	
1N5376B	87	15	75	760	1	0.5	66.0	54.5	
1N5377B	91	15	75	760	1	0.5	69.2	52.5	
1N5378B	100	12	90	800	1	0.5	76.0	47.5	
1N5379B	110	12	125	1000	1	0.5	83.6	43.0	
1N5380B	120	10	170	1150	1	0.5	91.2	39.5	
1N5381B	130	10	190	1250	1	0.5	98.8	36.6	
1N5382B	140	8	230	1500	1	0.5	106.0	34.0	
1N5383B	150	8	330	1500	1	0.5	114.0	31.6	
1N5384B	160	8	350	1650	1	0.5	122.0	29.4	
1N5385B	170	8	380	1750	1	0.5	129.0	28.0	
1N5386B	180	5	430	1750	1	0.5	137.0	26.4	
1N5387B	190	5	450	1850	1	0.5	144.0	25.0	
1N5388B	200	5	480	1850	1	0.5	152.0	23.6	

NOTE: 1. Normal Tolerance $\pm 5\%$

2. * Prefix "SMB" stands for "SMB (DO-214AA)" package. (e.g.: **SMB**5341B, **SMB**5388B,...etc.)

* Prefix "SMC" stands for "SMC (DO-214AB)" package. (e.g.: **SMC**5341B, **SMC**5388B,...etc.)