

APPLICATION

- For FM IF Amplifier and Detector

FEATURES

- 3 Stage Differential IF Amplifier.
- Differential Peak Detector.
- Excellent AM Rejection: AMR=50dB (Typ.)
- High Sensitivity: $V_{IN(lim)} = 50\text{dB}\mu\text{V}$ (Typ.)
- Operating Supply Voltage Range: $V_{CC} = 8 \sim 15\text{V}$.
- Low Distortion: THD=0.2% (Typ.)
- High Recovered Output Voltage: $V_{OD} = 500\text{mV}$ (Typ.)
- Simplified Single Coil Tuning. at $\Delta F = \pm 75\text{kHz}$ dev.
- Very Few External Parts.

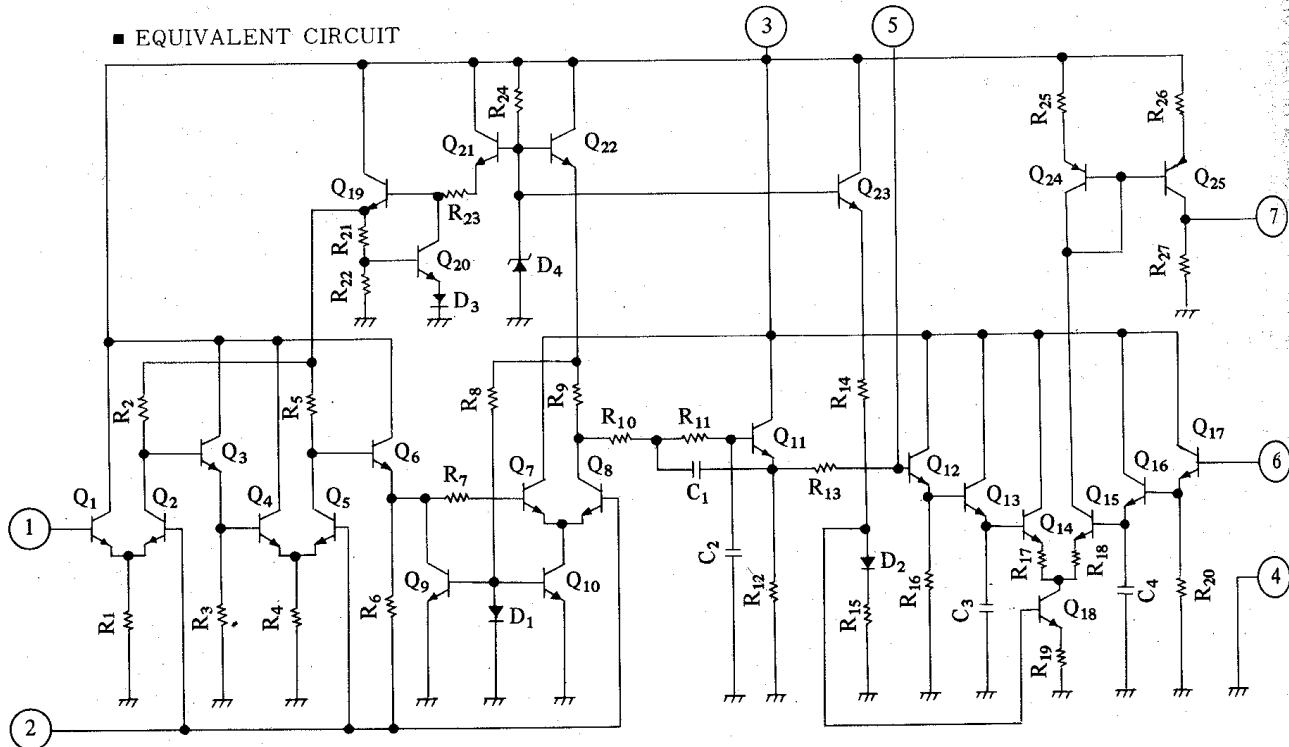
MAXIMUM RATINGS (Ta=25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Supply Voltage	$V_{CC}(V_s)$	15	V
Input Voltage	$V_{IN}(V_i)$	0.7	V_{rms}
Power Dissipation (Note)	P_D	400	mW

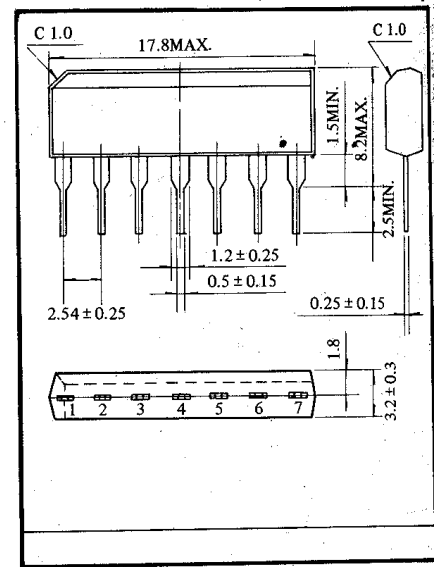
CHARACTERISTIC	SYMBOL	RATING	UNIT
Operating Temperature	T_{opr}	-25~75	°C
Storage Temperature	T_{stg}	-55~125	°C

■ **Note:** Derated above $T_a = 25^\circ\text{C}$ in the proportion of $4\text{mW}/^\circ\text{C}$.

EQUIVALENT CIRCUIT



Unit in mm



ELECTRICAL CHARACTERISTICS ($V_{CC}=12V$, $T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	TEST CIRCUIT	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Supply Current	I_{CC}	1	$V_{IN}=0$	8	11	15	mA
Output Terminal DC Voltage (Pin 7)	V_7	-	$V_{IN}=0, 5, 6$ pin short	4.0	4.8	5.5	V
Recovered Output Voltage (Note)	V_{OD}	1	$f=10.7MHz$, $f_M=400Hz$ $\Delta F=\pm 75kHz$ dev $V_{IN}=80dB\mu V$	300	500	700	mV _{rms}
Input Limiting Voltage	$V_{IN(lim)}$	1	$f=10.7MHz$, $f_M=400Hz$ $\Delta F=\pm 22.5kHz$ dev. -3dB Limiting	-	50	55	dB μV
Total Harmonic Distortion	THD	1	$f=10.7MHz$, $f_M=400Hz$ $\Delta F=\pm 22.5kHz$ dev. $V_{IN}=80dB\mu V$	-	0.2	-	%
Signal to Noise Ratio	S/N	-	$f=10.7MHz$, $f_M=400Hz$ $\Delta F=\pm 22.5kHz \rightarrow 0kHz$, $V_{IN}=80dB\mu V$	-	60	-	dB
AM Rejection Ratio	AMR	1	$f=10.7MHz$, $f_M=400Hz$ $V_{IN}=80dB\mu V$ FM : 75kHz dev. AM : 30% MOD	-	50	-	dB
Output Resistance	R_o	-	$f=400Hz$, 7 pin-GND	6.2	7.7	9.5	k Ω
Input Impedance	Parallel Input Resistance	r_{IP}	$f=10.7MHz$, 1 pin-GND	-	5	-	k Ω
	Parallel Input Capacitance	C_{IP}		-	4.5	-	pF
Output Impedance	Parallel Output Resistance	r_{OP}	$f=10.7MHz$, 5 pin-GND	-	1.3	-	k Ω
	Parallel Output Capacitance	C_{OP}		-	4	-	pF

■ **Note:** V_{OD} RANK ($\Delta F=\pm 22.5kHz$) : B RANK 90~140mV_{rms}, C RANK 130~210 V_{rms}

DIAGRAM

