

# TELEVISION/VIDEO DEVICES



## (a) I.F./R.F. amplifiers and oscillators

NPN PNP		TYPE	Maximum Ratings					Electrical Characteristics at T <sub>J</sub> =25°C						
Case: SOT-25 P <sub>D</sub> = 250 mW @ T <sub>a</sub> =25°C	Case: TO-92 P <sub>D</sub> =200 mW @ T <sub>a</sub> =25°C	Case: To.106 P <sub>D</sub> = 150 mW @ T <sub>a</sub> =25°C	V <sub>CB0</sub>	V <sub>CE0</sub>	V <sub>EB0</sub>	I <sub>C</sub>	h <sub>FE</sub> @	V <sub>CE/IC</sub>	G <sub>PE</sub> @ f	f <sub>T</sub>	C <sub>re</sub>	N <sub>F</sub> @ f		
			V	V	V	mA	min-max	V/mA	dB MHz	MHz	pF	dB	MHz	
			30	20	5	30	200-500	10/1	-	-	350	0.95	1.0	1
			30	20	5	30	100-220	10/1	-	-	260	0.95	1.2	1
			30	20	5	30	70-110	10/1	-	-	200	0.95	3.5	1
			30	20	5	30	30-75	10/1	-	-	200	0.95	3.5	1

NPN PNP		TYPE	Maximum Ratings					Electrical Characteristics at T <sub>J</sub> =25°C						
Case: TO-72	Case: TO-92	P <sub>D</sub> Ta=25°C W	V <sub>CB0</sub>	V <sub>CE0</sub>	V <sub>EB0</sub>	I <sub>C</sub>	h <sub>FE</sub> @	V <sub>CE/IC</sub>	G <sub>PE</sub> @ f	f <sub>T</sub>	C <sub>re</sub>	N <sub>F</sub> @		
			V	V	V	mA	min/max	V/mA	dB MHz	MHz	Pf	dB	MHz	
		0.15	40	30	4	25	25/-	10/4	42	35	350	0.15	3	35
		0.275	40	30	4	25	35/-	10/7	42	35	550	0.23	-	-
		0.15	30	20	3	20	13/-	10/2*	12	900	675	0.28	2.5	200
		0.15	30	20	3	20	13/-	10/2*	11	900	600	0.28	6.8	900
		0.15	25	20	3	15	10/-	10/2*	11	900	650	0.33	3.3	200
		0.15	30	20	3	20	15/-	10/3*	30	30	650	0.28	2	100
		0.15	30	20	3	20	50/-	10/3*	30	30	650typ	0.28	2	100
		0.12	30	20	3	20	15/-	10/3*	30	30	800typ	0.28	2	800
		0.12	30	20	3	20	15/-	10/3*	30	30	600-800	0.28	2	800

\*V<sub>CB/IE</sub>

TYPE NPN	P <sub>D</sub> @ Ta=25°C W	I <sub>CB0</sub> V	V <sub>CE0</sub> V	V <sub>EB0</sub> V	I <sub>C</sub> mA	h <sub>FE</sub> min/max	@	V <sub>CE/IC</sub> V/mA	f <sub>T</sub> min GHz	I <sub>CB0</sub> nA	C <sub>ob</sub> pF	N <sub>F</sub> dB (at 200 MHz)	Case
BFY 90	0.2	30	15	2.5	25	25/150		1/2	1.4 typ	10	0.6	2.5	TO-72
BFW 92	0.19	25	15	2.5	25	20/150		1/2	1.6 typ	50	0.6	4.0	TO-72
BFW 30	0.25	20	10	2.5	50	-/25		5/25	1.6 typ	50	0.8	5.0	TO-72
BFR 90	0.18	20	15	2.0	30	50/-		10/14	5.0 typ	50	0.4*	2.4	TO-72/TO-92

\*TO-50

NPN PNP		TYPE	Maximum Ratings					Electrical Characteristics at T <sub>J</sub> =25°C					
		P <sub>D</sub> @ Ta=25°C mW	V <sub>CB0</sub> V	V <sub>CE0</sub> V	V <sub>EB0</sub> V	I <sub>C</sub> mA	h <sub>FE</sub> min/max	@	V <sub>CE/IC</sub> V/mA	f <sub>T</sub> min MHz	I <sub>CB0</sub> μA	C <sub>ob</sub> pF	Case
		0.2	30	15	3	50	20/200		1/3	500	0.001	1.7	TO-72
		0.2	30	15	3	50	20/-		1/3	600	0.01	1.7	TO-72
		7*	65	40	4	1000	10/-		5/250	350	1000	10	TO-39
		5*	55	30	3.5	400	10/200		5/50	500	-	3	TO-39
		0.3	20	15	3	50	20/-		1/3	1000	0.01	1.7	TO-72

† I<sub>CEO</sub>

\* P<sub>D</sub> @ T<sub>C</sub> = 25°C

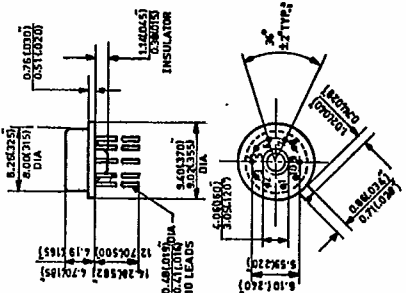
## (b) V.H.F./U.H.F. TV tuning devices

TR 17 / MW 10

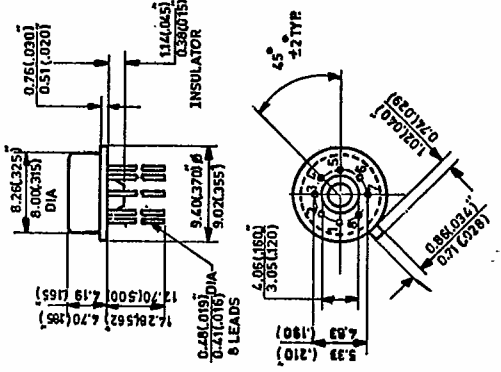
TYPE NPN	P <sub>D</sub> @ Ta=25°C (mW)	V <sub>CB0</sub> V	V <sub>CE0</sub> V	V <sub>EB0</sub> V	I <sub>C</sub> mA	I <sub>B</sub>	h <sub>FE</sub>	V <sub>CE/IC</sub> V/mA	f <sub>T</sub> (typ/max) MHz	I <sub>CB0</sub> nA (max)	I <sub>EB0</sub> nA	V <sub>CE (sat)</sub> V	I <sub>C/IB</sub> mA	Case
2 SC1393	250	30	30	4.0	20	-	40-240	10/2	400/700	100	-	-	-	TO-92 TO-72
2 SC1394	250	30	30	4.0	20	-	40-240	10/2	400/700	100	-	0.7	10/1	TO-92 TO-72
2 SC1395	250	30	15	4.0	20	-	40-240	10/2	600/1100	100	100	0.5 @	10/1	TO-92 TO-72
2 SC1674	250	30	20	4.0	20	-	40-240	6/1	-/500	-	-	-	-	TO-92 TO-72
2 SC1730	250	30	15	5.0	50	-	40-240	10/5	800/1100 typ	100	-	0.5 @	10/1	TO-92



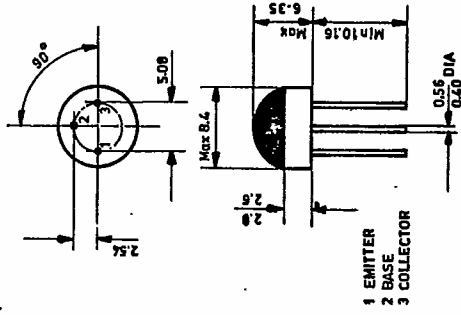
TO-96



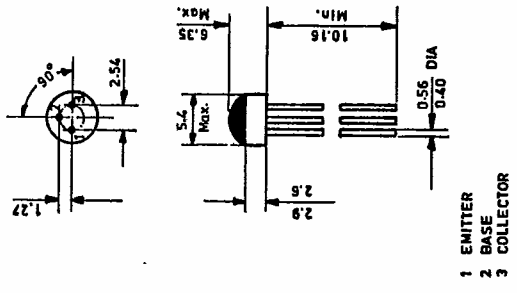
TO-99



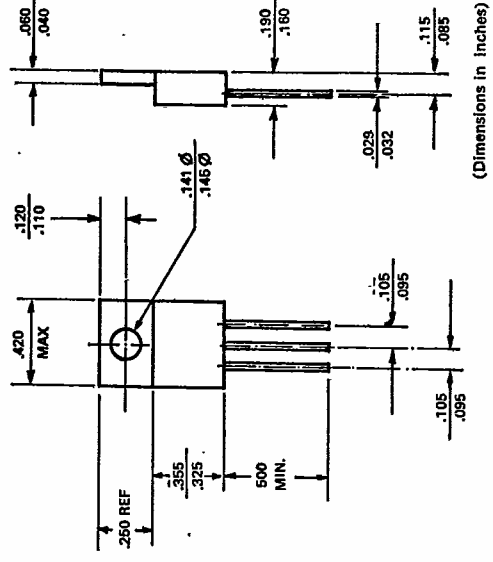
TO-105



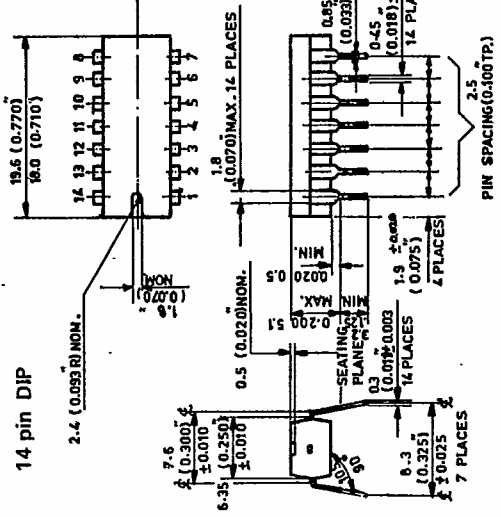
TO-106



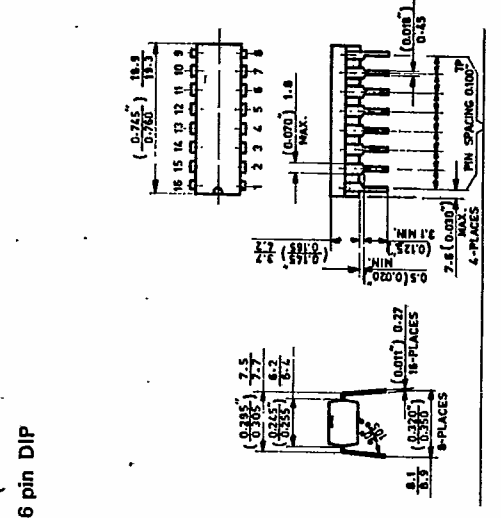
TO-220



14 pin DIP



16 pin DIP



Note : Dimensions in mm unless otherwise specified

(Dimensions in inches)