MICRO ELECTRONICS

CL155 CL166

THE CL155 (PNP) AND CL166 (NPN) ARE SILICON PLANAR EPITAXIAL COMPLEMENTARY PAIR SPECIALLY DESIGNED FOR 2-WATT AUDIO AMPLIFIER OUTPUT AND SWITCHING APPLICATIONS. THEY FEATURE LOW COLLECTOR-EMITTER KNEE VOLTAGE AND GOOD LINEARITY OF D.C. CURRENT GAIN.

TO-92A

EBC

ABSOLUTE MAXIMUM RATINGS

For p n p devices, voltage and current values are negative

Collector-Base Voltage	V_{CBO}	30V
Collector-Emitter Voltage	V_{CEO}	25V
Emitter-Base Voltage	V_{EBO}	5V
Collector Current	I_C	1.5A
Collector Peak Current ($t \leq 50mS$)	I_{CM}	2.2A
Total Power Dissipation @ $T_C \leq 25^oC$	Ptot	1.5W
Without Heat Sink @ $T_A \leq 25^oC$		625mW
Operating Junction & Storage Temperature	T_j, Tstg	-55 to 150°C

ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	BV_{CBO}	30			V	I_C=100μA I_E=0
Collector-Emitter Breakdown Voltage	LV_{CEO} *	25			V	I_C=10mA I_B=0
Collector Cutoff Current	I_{CES}			0.5	μA	V_{CE}=20V V_{BE}=0
Emitter Cutoff Current	I_{EBO}			1.0	μA	V_{EB}=5V I_C=0
Collector-Emitter Knee Voltage	V_{CEK}		0.2	0.4	V	I_C=0.2A I_B=value at which I_C=0.22A V_{CE}=1V
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$ *		0.25	0.45	V	IC=1A I_B=0.1A
Base-Emitter Voltage	V_{BE} *		0.82	1.2	V	I_C=0.5A V_{CE}=1V
D.C. Current Gain (Note)	H_{FE} 1 *	50	160	360		I_C=0.1A V_{CE}=1V
	H_{FE} 2 *	30	110			I_C=1A V_{CE}=2V
Current Gain-Bandwidth Product	f_T		120		MHz	I_C=50mA V_{CE}=10V

Note : H_{FE} 1 is classified as follows. Group A : 50-100 Group B : 80-160 Group C : 120-240 Group D : 180-360

* Pulse Test : Pulse Width=0.3mS, Duty Cycle=1%

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