

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 ( $t \leq 50\mu s$ )	$I_{CM}$	2.2A
Total Power Dissipation @ $T_C \leq 25^\circ C$	$P_{tot}$	1.5W

Without Heat Sink @ $T_A \leq 25^\circ C$		625mW
Operating Junction & Storage Temperature	$T_j, T_{stg}$	-55 to 150°C

**ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ C$  unless otherwise noted)**

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Collector-Base Breakdown Voltage	$V_{CBO}$	30			V	$I_C = 100\mu A, I_B = 0$
Collector-Emitter Breakdown Voltage	$V_{CEO}^*$	25			V	$I_C = 10mA, I_B = 0$
Collector Cutoff Current	$I_{CES}$			0.5	$\mu A$	$V_{CE} = 20V, V_{BE} = 0$
Emitter Cutoff Current	$I_{EBO}$			1.0	$\mu A$	$V_{EB} = 5V, I_C = 0$
Collector-Emitter Knee Voltage	$V_{CEK}$		0.2	0.4	V	$I_C = 0.2A, I_B = \text{value at which } I_C = 0.22A, V_{CE} = 1V$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}^*$		0.25	0.45	V	$I_C = 1A, I_B = 0.1A$
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 C : 120-240

Group B : 80-160  
Group D : 180-360

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



MICRO ELECTRONICS LTD. 美科有限公司

38, Hung To Road, Microtron Building, Kwun Tong, Kowloon, Hong Kong.

Kwun Tong P.O. Box 69477 Hong Kong. Fax No. 341 0321 Telex: 43510 Micro Hx. Tel: 343 0181-5