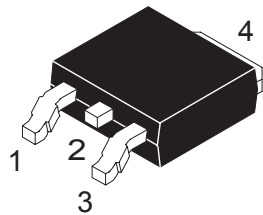
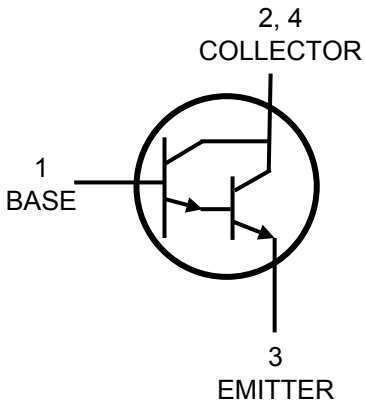


工业型号	公司型号	打印标识	封装形式	包装规格
MJD122	H122G	J122G	TO-252	2500Pcs/卷盘, 5000Pcs/盒, 25Kpcs/箱

Designed for general purpose amplifier and low speed switching applications. DPAK For Surface Mount Applications Designed for general purpose amplifier and low speed switching applications. Features ◆Lead Formed for Surface Mount Applications ◆in Plastic Sleeves ◆Surface Mount Replacements for 2N6040-2N6045 Series TIP120-TIP122 Series, and TIP125-TIP127 Series ◆Monolithic Construction With Built-in Base-Emitter Shunt Resistors ◆High DC Current Gain: $h_{FE}=2500(\text{Typ}) @ I_C=4.0\text{Adc}$ Epoxy Meets UL 94 V-0 @ 0.125 in ◆ESD Ratings: Human Body Model, $3B \geq 8000V$ Machine Model, $C \geq 400V$ ◆Pb-Free Packages are Available 用于音频功率放大器	MJD122 Series Pin Assignment
	 

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C , unless otherwise specified)

SYMBOL	PARAMETER		VALUE	UNIT
I _C	Collector Current (DC)		8	A
	Collector Current (PULSE)		16	
I _B	Base Current		120	mA
V _{CBO}	Collector-Emitter Voltage		100	V
V _{CB}	Collector-Base Voltage		100	
V _{EB}	Emitter-Base Voltage		5	
P _D	Total Power Dissipation	T _A =25°C	20	W
		Derate above 25°C	0.16	W/°C
T _J , T _{stg}	Operating and Storage Junction Temperature Range		-65 to +150	°C
R _{θJC}	Thermal Resistance, Junction-to-Case		6.25	°C/W
R _{θJA}	Thermal Resistance, Junction-to-Ambient		71.4	

■ ELECTRICAL CHARACTERISTICS (Ta=25℃, unless otherwise specified)

SYMBOL	CHARACTERISTICS	TEST CONDITION	MIN	MAX	UNIT
I_{CEO}	Collector Cut-off Current	$V_{CE}=50V, I_B=0$	--	10	μA
I_{CBO}	Collector Cutoff Current	$V_{EB}=100V, I_E=0$	--	10	
I_{EBO}	Emitter Cut-off Current	$V_{EB}=5V, I_C=0$	--	2	mA
V_{CE0}	Collector-Emitter Sustaining Voltage	$I_C=30mA, I_B=0$	100		V
V_{CE}	Collector-Emitter Saturation Voltage	$I_C=4A, I_B=16mA$ $I_C=8A, I_B=80mA$		2 4	
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=8A, V_{CE}=4V$		4.5	
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=4A, V_{CE}=4V$		2.8	
h_{FE}	DC Current Gain	$I_C=4A, V_{CE}=4V$ $I_C=8A, V_{CE}=4V$	1000 100	12000 -----	

DYNAMIC CHARACTERISTICS

SYMBOL	CHARACTERISTICS	TEST CONDITION	MIN	MAX	UNIT
$ h_{fe} $	Current-Gain-Bandwidth Product	$I_C=3A, V_{CE}=4V, f=1MHz$	4	--	MHz
C_{ob}	Output Capacitance	$V_{CB}=10V, I_E=0, f=1MHz$	--	200	pF
h_{fe}	Small-Signal Current Gain	$I_C=3A, V_{CE}=4V, f=1MHz$	300	--	

1、Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted.

Product performance may not be indicated by the Electrical Characteristics if operated under different conditions

2、Pulse Test: Pulse Width 300 s, Duty Cycle 2%.

TYPICAL ELECTRICAL CHARACTERISTICS

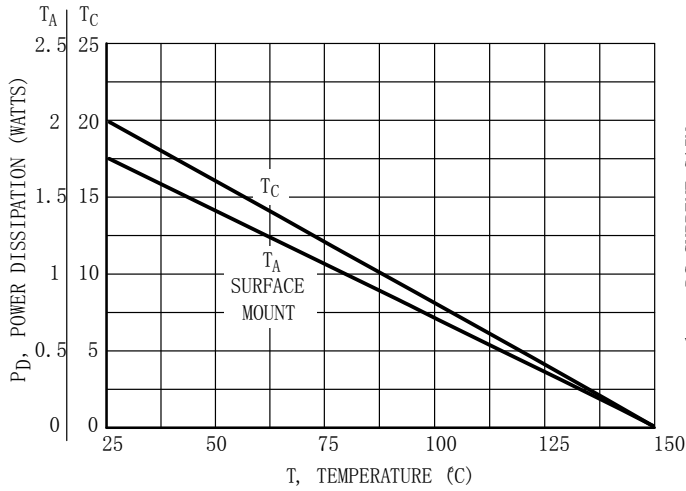


Figure 1. Power Derating

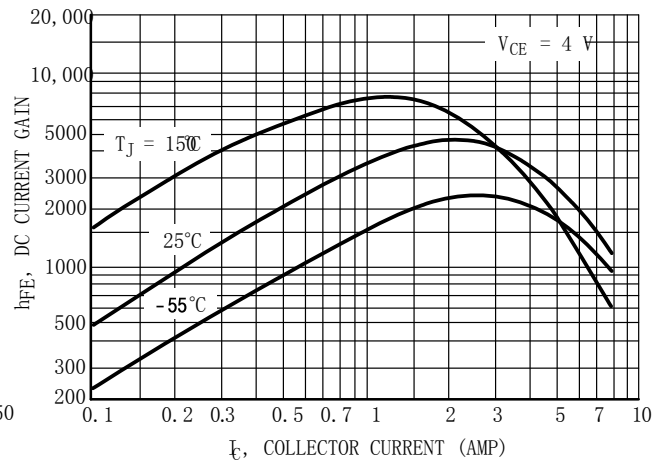


Figure 2. DC Current Gain

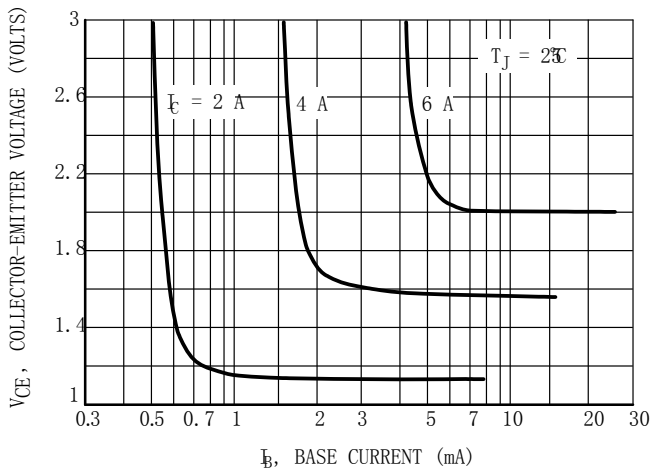


Figure 3. Collector Saturation Region

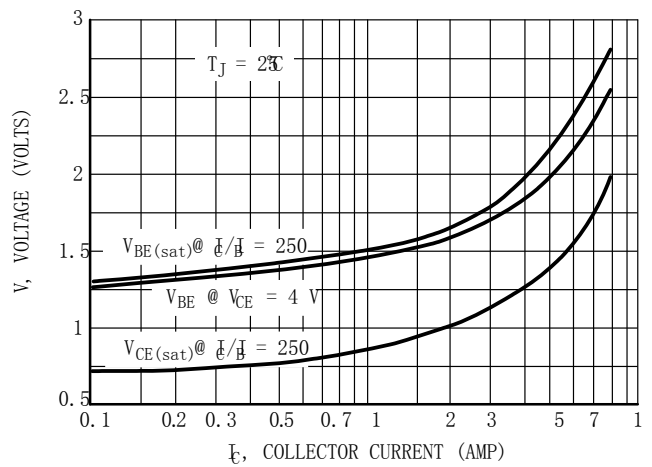
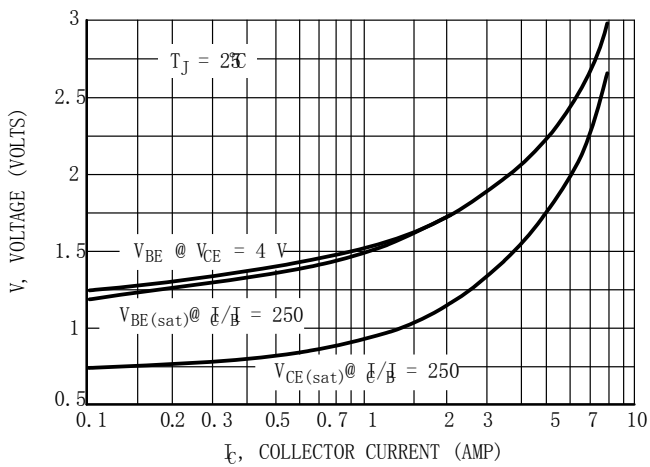
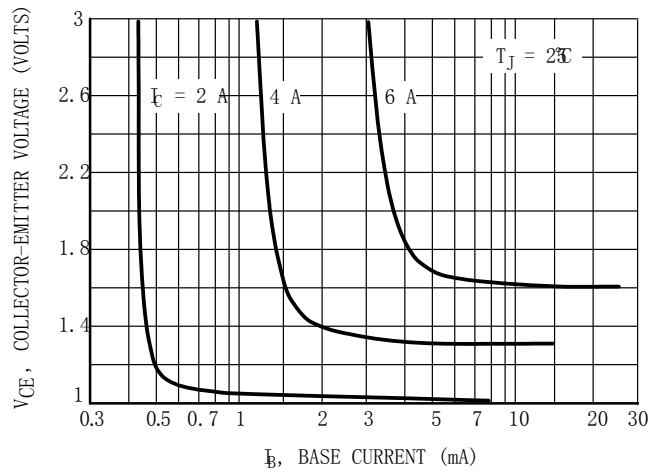


Figure 4. "On" Voltages

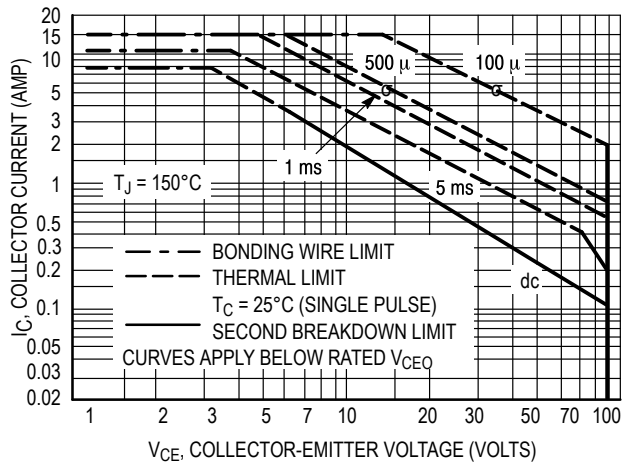


Figure 5. Maximum Forward Bias Safe Operating Area

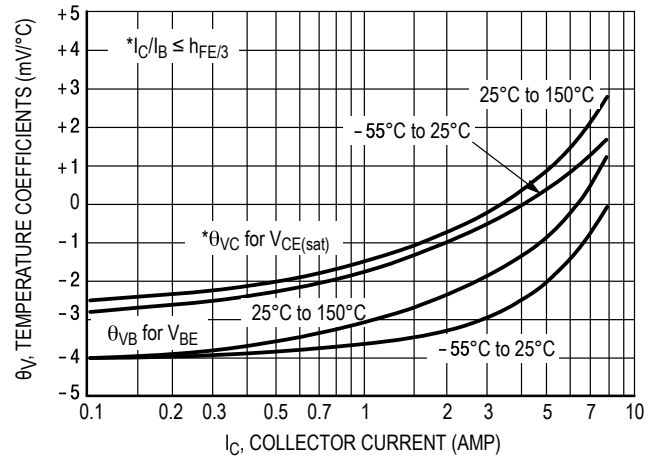


Figure 6. Temperature Coefficients

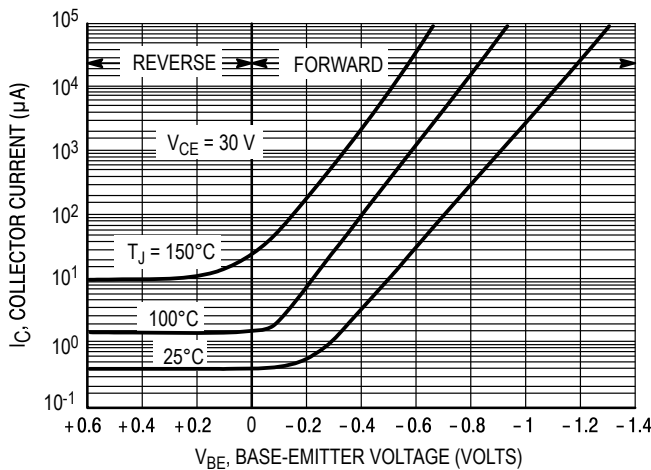


Figure 7. Collector Cut-Off Region

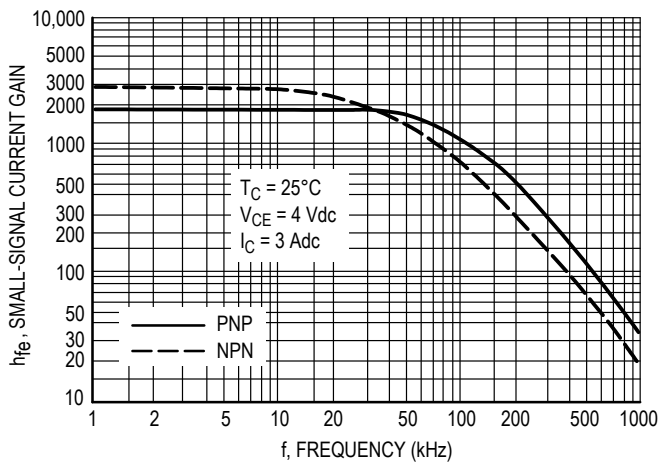
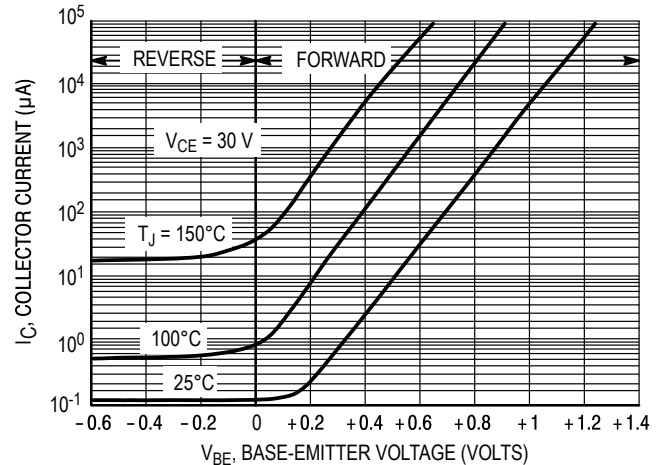


Figure 8. Small-Signal Current Gain

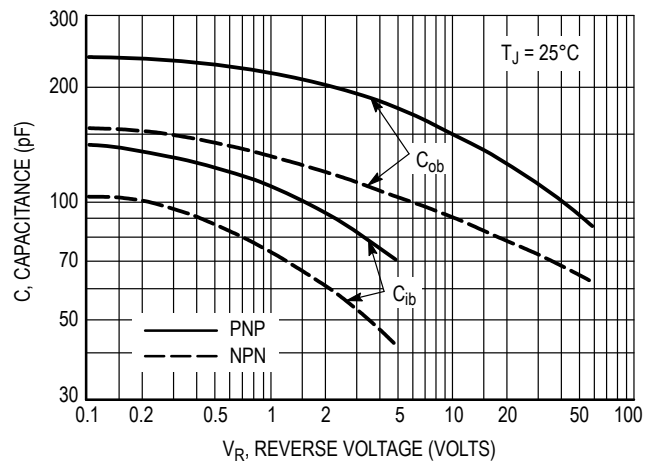


Figure 9. Capacitance

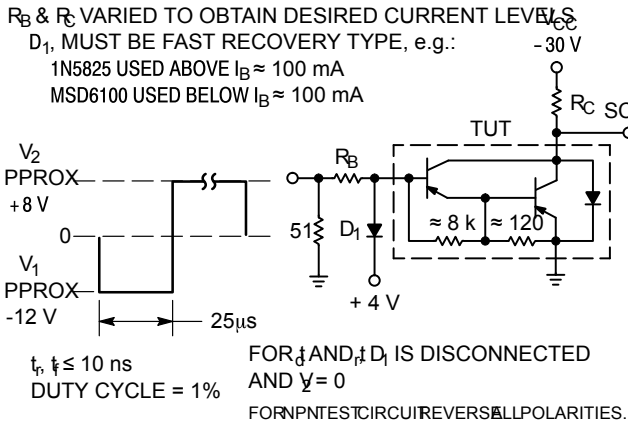


Figure 10. Switching Times Test Circuit

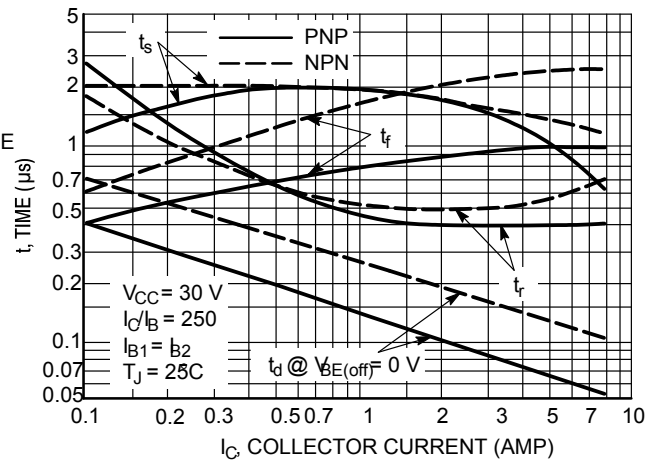


Figure 11. Switching Times

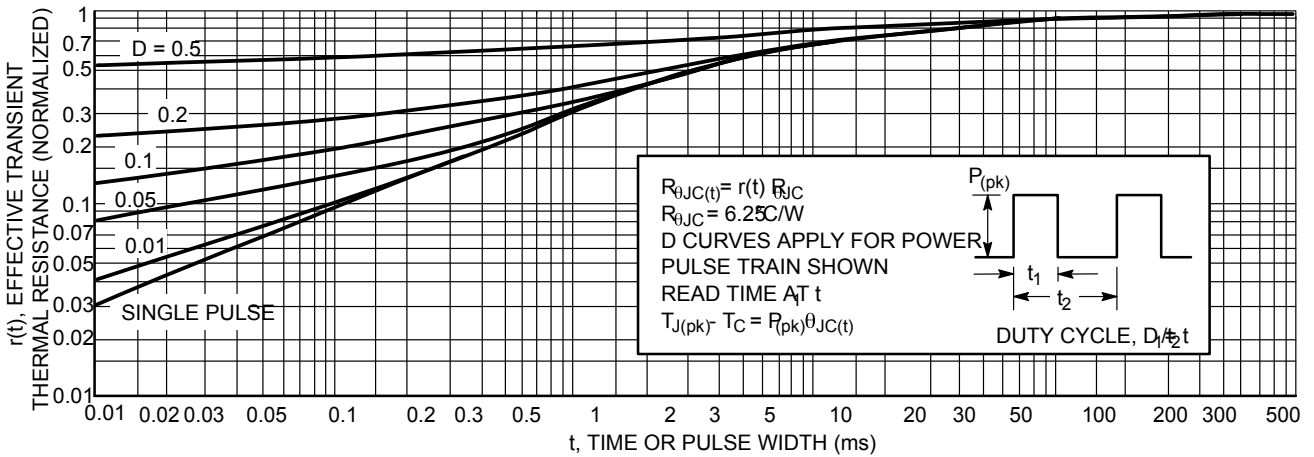


Figure 13. Thermal Response

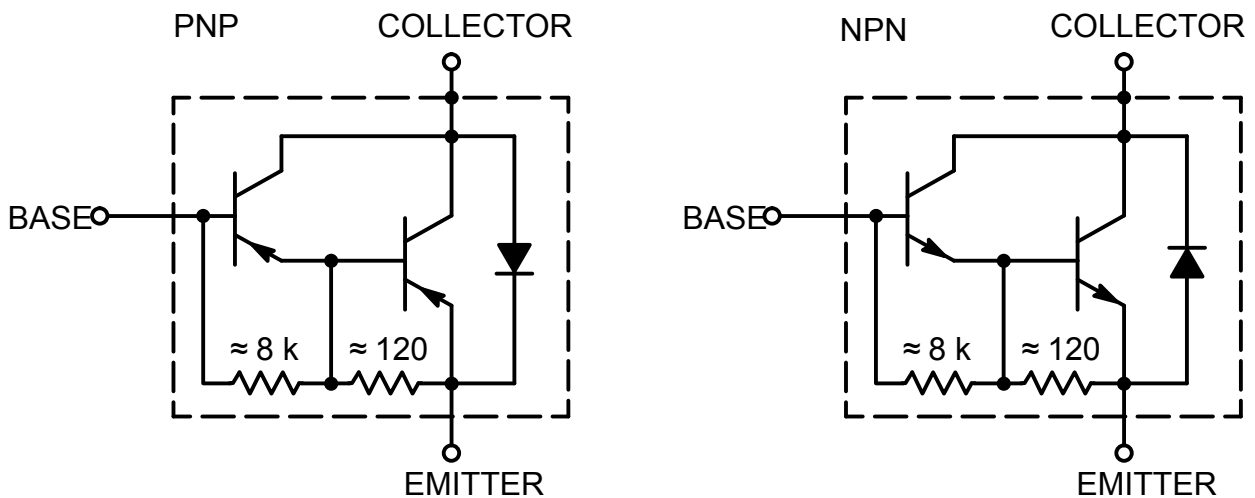
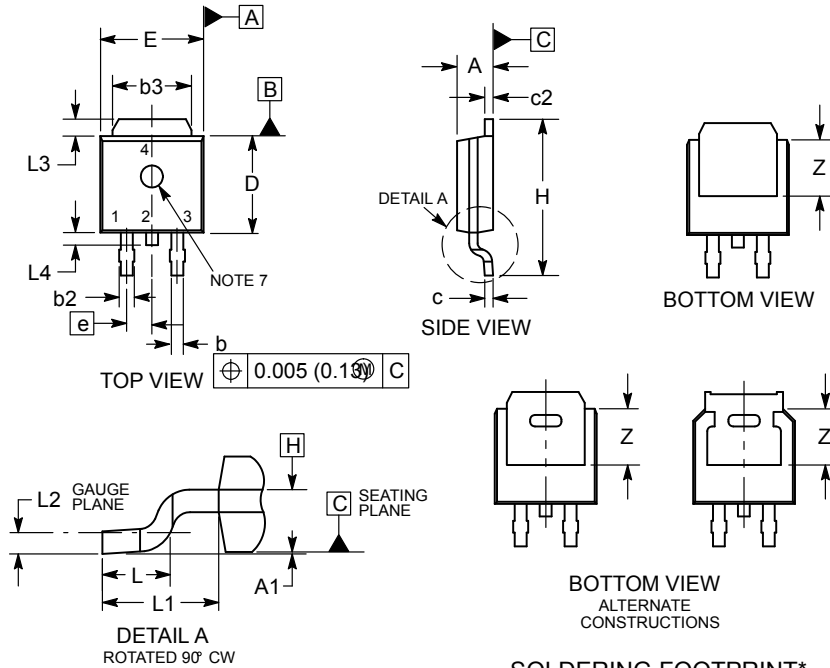


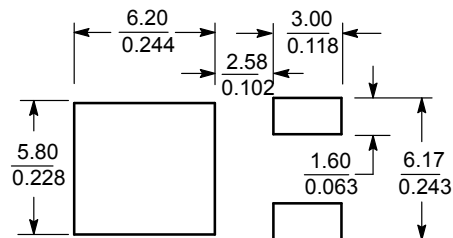
Figure 14. Darlington Schematic

PACKAGE DIMENSIONS (mm)



DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.086	0.094	2.18	2.38
A1	0.000	0.005	0.00	0.13
b	0.025	0.035	0.63	0.89
b2	0.028	0.045	0.72	1.14
b3	0.180	0.215	4.57	5.46
c	0.018	0.024	0.46	0.61
c2	0.018	0.024	0.46	0.61
D	0.235	0.245	5.97	6.22
E	0.250	0.265	6.35	6.73
e	0.090 BSC		2.29 BSC	
H	0.370	0.410	9.40	10.41
L	0.055	0.070	1.40	1.78
L1	0.114 REF		2.90 REF	
L2	0.020 BSC		0.51 BSC	
L3	0.035	0.050	0.89	1.27
L4	---	0.040	---	1.01
Z	0.155	---	3.93	---

SOLDERING FOOTPRINT*



SCALE 3:1 (mm/inches)

STYLE 1:

PIN 1. BASE

2. COLLECTOR

3. EMITTER

4. COLLECTOR

Manufacturers version information

2007-03-11, HAOHAI™ Product Data-S1.0

2010-04-10, HAOHAI™ Product Data-S1.1

2014-07-11, HAOHAI™ Product Data-S2.0

2018-10-23, HAOHAI™ Product Data-S2.1

2021-06-04, HAOHAI™ Product Data-S2.2



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