

MJ802(NPN), MJ4502(PNP)

COMPLEMENTARY SILICON HIGH POWER TRANSISTORS

FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

MAXIMUM RATINGS

Rating	Symbol	Value	Units
Collector-emitter voltage ($I_B = 0$)	V_{CEO}	90	V
Collector-base voltage ($I_E = 0$)	V_{CBO}	100	V
Emitter base voltage ($I_C = 0$)	V_{EBO}	4	V
Collector current	I_C	30	A
Base current	I_B	7.5	A
Total power dissipation $T_C \leq 25^\circ\text{C}$	P_{tot}	200	W
Storage temperature range	T_{stg}	-65 to +200	$^\circ\text{C}$
Maximum operating junction temperature	T_J	200	$^\circ\text{C}$
Thermal resistance, junction to case	R_{thj-c}	0.875	$^\circ\text{C/W}$

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit
Collector-emitter sustaining voltage ⁽¹⁾ ($I_B = 0, I_C = 200\text{mA}$)	$V_{CEO(sus)}$	90	-	-	V
Collector cutoff current ($I_E = 0, V_{CB} = 100\text{V}$) ($I_E = 0, V_{CB} = 100\text{V}, T_C = 150^\circ\text{C}$)	I_{CBO}	-	-	1 5	mA
Emitter cutoff current ($I_C = 0, V_{EB} = 4\text{V}$)	I_{EBO}	-	-	1	mA
Collector emitter sustaining voltage ⁽¹⁾ ($R_{BE} = 100\Omega, I_C = 200\text{mA}$)	$V_{CER(sus)}$	100	-	-	V
DC current gain ⁽¹⁾ ($I_C = 7.5\text{A}, V_{CE} = 2\text{V}$)	h_{FE}	25	-	100	V
Collector emitter saturation voltage ⁽¹⁾ $I_C = 7.5\text{A}, I_B = 0.75\text{A}$	$V_{CE(sat)}$	-	-	0.8	V
Base emitter saturation voltage ⁽¹⁾ $I_C = 7.5\text{A}, I_B = 0.75\text{A}$	$V_{BE(sat)}$	-	-	1.3	V
Base emitter voltage ⁽¹⁾ $I_C = 7.5\text{A}, V_{CE} = 2\text{V}$	V_{BE}	-	-	1.3	V
Transition frequency $I_C = 1\text{A}, V_{CE} = 10\text{V}, f = 1\text{MHz}$	f_T	2	-	-	MHz

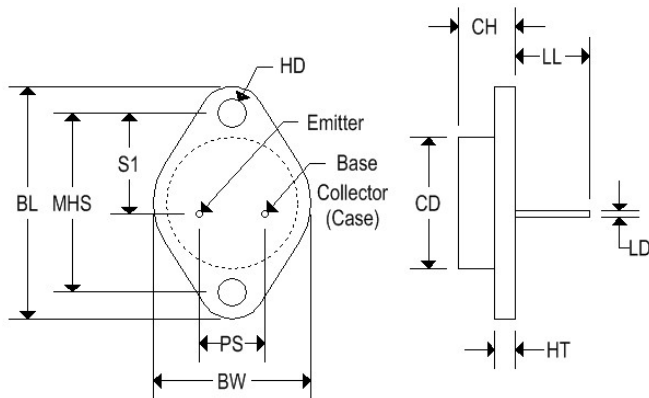
Note 1: Pulse duration = 300 μs , duty cycle 1.5%.

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MECHANICAL CHARACTERISTICS

Case	TO-3
Marking	Alpha-numeric
Pin out	See below



	TO-3			
	Inches		Millimeters	
	Min	Max	Min	Max
CD	-	0.875	-	22.220
CH	0.250	0.380	6.860	9.650
HT	0.060	0.135	1.520	3.430
BW	-	1.050	-	26.670
HD	0.131	0.188	3.330	4.780
LD	0.038	0.043	0.970	1.090
LL	0.312	0.500	7.920	12.700
BL	1.550 REF		39.370 REF	
MHS	1.177	1.197	29.900	30.400
PS	0.420	0.440	10.670	11.180
S1	0.655	0.675	16.640	17.150