DIGITRON™ Semiconductors

High-reliability discrete products
and engineering services since 1977

2SB554

PNP SILICON POWER TRANSISTOR

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

Characteristic	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	180	V
Collector-emitter voltage	V_{CEO}	180	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	15	A
Emitter current	I_E	15	A
Collector power dissipation (T_C = 25°C)	P_C	150	W
Junction temperature	T_J	150	°C
Storage temperature	T_{stg}	-65 to 150	°C

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

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	V_{CB} = 90V, I_E = 0	-	-	100	µA
Emitter cut-off current	I_{EBO}	V_{EB} = 5V, I_C = 0	-	-	100	µA
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C = 0.1A, I_B = 0	180	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E = 10mA, I_C = 0	5	-	-	V
DC current gain	h_{FE} (1)	V_{CE} = 5V, I_C = 2A	40	-	140	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 10A, I_B = 1A	-	-	3.0	V
Base-emitter voltage	V_{BE}	V_{CE} = 5V, I_C = 10A	-	-	2.5	V
Transition frequency	f_T	V_{CE} = 5V, I_C = 2A	-	6	-	MHz
Collector output capacitance	C_{ob}	V_{CB} = 10V, I_E = 0, f = 1 MHz	-	450	-	pF

Note 1: h_{FE} Classifications (use as part number suffix)

R	O
40-80	70-140

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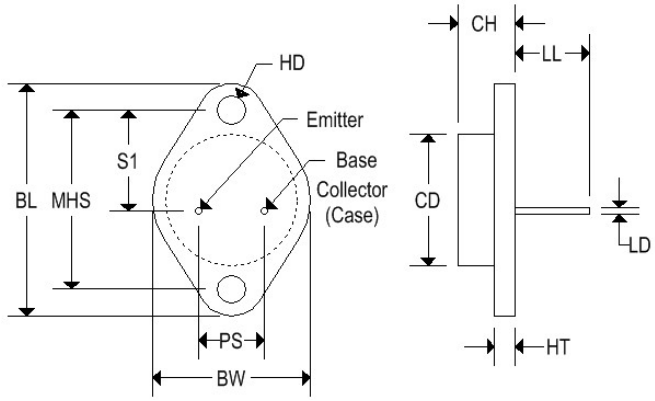
MECHANICAL CHARACTERISTICS

Case	TO-3
Marking	Alpha-numeric
Polarity	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

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