New Jersey Semi-Conductor Products, Inc.

2N6180

P-N-P Silicon Power Transistor

MAXIMUM RATINGS, *Absolute-Maximum Values:*

* V_{CBO}		−100	V
* V_{CEX}			
V_{BE} = 1.5 V reverse bias		−100	V
$V_{CER(sus)}$			
R_{BE} = 100 Ω		−90	V
$V_{CEO(sus)}$		−75	V
* V_{EBO}		−7	V
* I_C		−2	A
* I_B		−1	A
* P_T:			
T_C ≤ 25°C		25	W
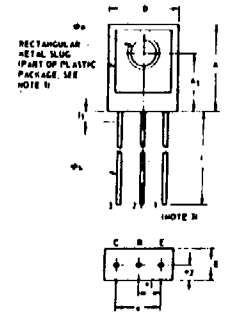
SYMBOL	INCHES		MILLIMETERS	
	MIN.	MAX.	MIN.	MAX.
A	0.385	0.395	9.78	10.03
A1	0.251	0.261	6.37	6.63
øb	0.016	0.019	0.41	0.48
C	0.858		21.79	
C1	0.750		19.05	
D	0.305	0.315	7.75	8.00
D1	0.300		7.62	
D2	0.070		1.77	
D3	0.0320		0.813	
D4	0.021	0.041	0.533	1.04
ød	0.073	0.077	1.85	1.95
E	0.145	0.155	3.68	3.94
e	0.195	0.205	4.95	5.21
e1	0.095	0.105	2.41	2.67
e2	0.070	0.080	1.78	2.03
f	0.725	0.745	18.41	18.91
f1	0.125	0.250	3.17	6.35
øp	0.112	0.118	2.84	2.99

ELECTRICAL CHARACTERISTICS, *At Case Temperature (T_C) = 25°C unless otherwise specified*

CHARACTERISTIC	TEST CONDITIONS*					LIMITS		UNITS
	VOLTAGE V dc			CURRENT mA dc				
	V_{CB}	V_{CE}	V_{BE}	I_C	I_B	Min.	Max.	
I_{CBO}	80					−	0.5	μA
I_E = 0	60					−	−	
I_{CEO}		60			0	−	1	mA
		45			0	−	−	
I_{CEV}		100	−1.5			−	0.1	mA
		75	−1.5			−	−	
T_C = 100°C		70	−1.5			−	0.5	
		45	−1.5			−	−	
I_{EBO}			−7	0		−	0.1	mA
			−6	0		−	−	
$V_{(BR)EBO}$ I_E = 0.1 mA				0		7	−	V
$V_{(BR)CEV}$			−1.5	0.1		100	−	V
$V_{(BR)CEO}$				100	0	75	−	V
$V_{CER(sus)}$ a R_{BE} = 100 Ω				100		90	−	V
$V_{CEO(sus)}$ a				100	0	75	−	V
$V_{CE(sat)}$				−500	−50	−	−0.7	V
$V_{BE(sat)}$				500	50	−	1.2	V
C_{obo} f = 1 MHz	−10					25	40	pF
h_{FE}		−4		−500 [b]		30	150	
		−4		−1000 [b]		10	−	
$I_{S/b}$ t = 0.4s, nonrep.		−50				−150	−	mA
f_T		4		50		50	−	MHz
$|h_{fe}|$ f = 10 MHz		4		50		5	−	

* In accordance with JEDEC registration data format JS-6/RDF-1.
♦ For p-n-p devices, voltage and current values are negative.
a CAUTION: The sustaining voltages $V_{CEO(sus)}$ and $V_{CER(sus)}$ MUST NOT be measured on a curve tracer.
b Pulsed; pulse duration ≤ 300 μs, duty factor ≤ 0.02.