

New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
 SPRINGFIELD, NEW JERSEY 07081
 U.S.A.

40347

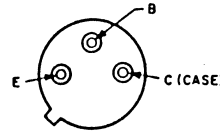
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Silicon N-P-N Power Transistor

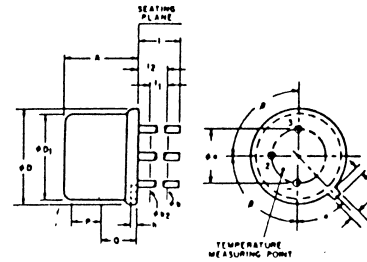
Maximum Ratings, Absolute-Maximum Values:

* COLLECTOR-TO-BASE VOLTAGE	V_{CB0}	60	V
* COLLECTOR-TO-EMITTER VOLTAGE:			
With base open, sustaining	$V_{CE0(sus)}$	40	V
With emitter-to-base reverse biased ($V_{EB} = 1.5$ volts)	V_{CEV}	60	V
* EMITTER-TO-BASE VOLTAGE	V_{EBO}	7	V
* COLLECTOR CURRENT	I_C	1.5	A
PEAK COLLECTOR CURRENT	I_{CM}	3.0	A
* EMITTER CURRENT	I_E	—	A
* BASE CURRENT	I_B	0.5	A
* TRANSISTOR DISSIPATION:	P_T		
At case temperature of 25°C		11.7	W

TERMINAL DESIGNATIONS



TO-39/TO-5

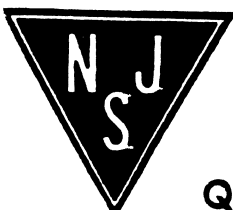


ELECTRICAL CHARACTERISTICS, At Case Temperature (T_C) = 25°C unless otherwise specified

CHARACTERISTIC	SYMBOL	TEST CONDITIONS				LIMITS		UNITS
		VOLTAGE		CURRENT		40347		
		V_{CE}	V_{BE}	I_C	I_B	MIN.	MAX.	
Collector-Cutoff Current	I_{CER}	30				—	1	μA
With external base-to-emitter resistance ($R_{BE} = 1 k\Omega$)		60				—	—	
With $R_{BE} = 1 k\Omega$ and $T_C = 150^\circ C$		90				—	—	
Emitter-Cutoff Current	I_{EBO}		-7			—	10	μA
DC Forward-Current	h_{FE}	4		0.15		—	—	
Transfer Ratio		4		0.30		—	—	
		4		0.45		25	100	
		4		1.00		—	—	
Collector-to-Emitter Sustaining Voltage:	$V_{CEV(sus)}$		-1.5	0.050		60	—	V
With base-emitter junction reverse biased				0.050		40	—	V
With base open	$V_{CE0(sus)}$			0.050		40	—	V
Base-to-Emitter Voltage	V_{BE}	4		0.15		—	—	V
		4		0.30		—	—	
		4		0.45		—	1.5	
Collector-to-Emitter Saturation Voltage	$V_{CE(sat)}$			0.15	15 mA	—	—	V
				0.30	30 mA	—	—	
				0.45	45 mA	—	1	

SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
ϕA	0.190	0.210	4.83	5.33	2
A	0.240	0.260	6.10	6.60	
ϕb	0.016	0.021	0.406	0.533	2
ϕb_2	0.016	0.019	0.406	0.483	
ϕD	0.350	0.370	8.89	9.40	3
ϕD_1	0.305	0.335	8.00	8.51	
h	0.009	0.041	0.229	1.04	2
j	0.028	0.034	0.711	0.864	
k	0.029	0.040	0.737	1.02	3
L (long lead)	1.500		38.10		
L (short lead)	0.500		12.70		2
l_1		0.050		1.27	
l_2	0.250		6.35		2
P	0.100		2.54		
O					1
e					
ϕ			450 NOMINAL		4
ϕ			900 NOMINAL		

- Note 1: This zone is controlled for automatic handling. The variation in actual diameter within this zone shall not exceed 0.010 in. (0.254 mm).
- Note 2: (Three leads) ϕb_2 applies between l_1 and l_2 . ϕb applies between l_2 and l_1 . Diameter is uncontrolled in l_1 .
- Note 3: Measured from maximum diameter of the actual device.
- Note 4: Details of outline in this zone optional.



Quality Semi-Conductors