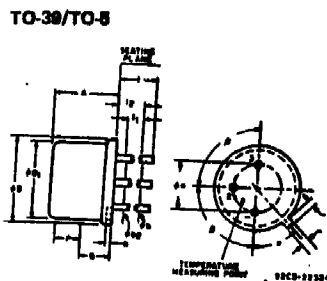


40349

Hometaxial-Base Silicon N-P-N Power Transistor

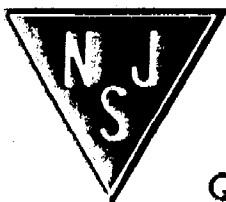
Maximum Ratings, Absolute-Maximum Values:

* COLLECTOR-TO-BASE VOLTAGE	V _{CBO}	160	V
* COLLECTOR-TO-EMITTER VOLTAGE:			
With base open, sustaining	V _{CEO(sus)}	140	V
With emitter-to-base reverse biased			
(V _{EB} = 1.5 volts)	V _{CEV}	160	V
* EMITTER-TO-BASE VOLTAGE	V _{EB0}	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



SYMBOL	INCHES		MILLIMETERS		NOTES
	MIN.	MAX.	MIN.	MAX.	
φa	0.190	0.210	4.83	5.33	
A	0.240	0.260	6.10	6.60	
φb	0.016	0.021	0.406	0.533	2
φb2	0.016	0.019	0.406	0.483	2
φD	0.350	0.370	8.89	9.40	
φD1	0.306	0.336	7.80	8.51	
h	0.009	0.041	0.229	1.04	
j	0.029	0.034	0.711	0.864	
k	0.029	0.040	0.737	1.02	3
L long lead	1.500		38.10		2
L short lead	0.500		12.70		2
l ₁		0.060		1.27	2
l ₂	0.250		6.35		2
p	0.100		2.54		1
Q					4
e	45° NOMINAL				
β	90° 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) φb₂ applies between l₁ and l₂. φb applies between l₂ and l. Diameter is uncontrolled in l₁.
- Note 3: Measured from maximum diameter of the actual device.
- Note 4: Details of outline in this zone optional.



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

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

CHARACTERISTIC	SYMBOL	TEST CONDITIONS						UNITS
		VOLTAGE V _{dc}		CURRENT A _{dc}		40349		
		V _{CE}	V _{BE}	I _C	I _B	MIN.	MAX.	
(R _{BE}) = 1 kΩ and T _C = 150°C		90				-	2	
		90				-	1	
Emitter-Cutoff Current	I _{EBO}		-7			-	10	μA
Transfer Ratio	h _{FE}	4		0.15		30	125	
		4		0.45		10	-	
		4		1.00		-	-	
Collector-to-Emitter Sustaining Voltage: With base-emitter junction reverse biased	V _{CEV(sus)}		-1.5	0.050		160 ^a	-	V
With base open	V _{CEO(sus)}			0.050		140 ^a	-	V
Base-to-Emitter Voltage	V _{BE}	4		0.15		-	1.1	V
Collector-to-Emitter	V _{CE(sat)}			0.15	15 mA	-	0.15	V
Forward-Bias Second Break- down Collector Current (1-s non-repetitive pulse)	I _{S/b}	38				-	-	mA
		63				-	-	
		138				95	-	
Thermal Resistance: Junction-to-Case	R _{θJC}					20(max.)		°C/W
Thermal Resistance: Junction-to-Ambient	R _{θJA}					40(max)		°C/W

^a Pulsed; pulse duration = 300 μs, duty factor < 2%.