

2N6036 PNP

SILICON DARLINGTON POWER TRANSISTOR

*MAXIMUM RATINGS

Rating	Symbol	Unit
Collector-Emitter Voltage	V_{CE0}	Vdc
Collector-Base Voltage	V_{CB}	Vdc
Emitter-Base Voltage	V_{EB}	Vdc
Collector Current - Continuous	I_C	Adc
Base Current	I_B	mA dc
Total Power Dissipation @ $T_C = 25^\circ C$ Derate above $25^\circ C$	P_D	Watts W/ $^\circ C$
Total Power Dissipation @ $T_A = 25^\circ C$ Derate above $25^\circ C$	P_D	Watts W/ $^\circ C$
Operating and Storage Junction Temperature Range	$T_{J, T_{stg}}$	$^\circ C$

THERMAL CHARACTERISTICS

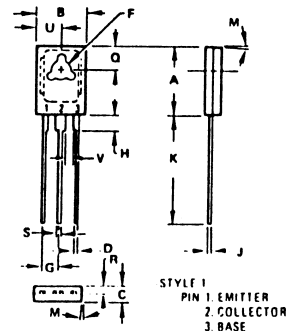
Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	θ_{JC}	3.12	$^\circ C/W$
Thermal Resistance, Junction to Ambient	θ_{JA}	83.3	$^\circ C/W$

*Indicates JEDEC Registered Data.

*ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ C$ unless otherwise noted)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Collector-Emitter Sustaining Voltage ($I_C = 100$ mA dc, $I_B = 0$)	$V_{CE0(sus)}$	30	-	Vdc
Collector-Cutoff Current ($V_{CE} = 80$ Vdc, $I_B = 0$)	I_{CEO}	-	100	μA
Collector Cutoff Current ($V_{CE} = 80$ Vdc, $V_{BE(off)} = 1.5$ Vdc) ($V_{CE} = 80$ Vdc, $V_{BE(off)} = 1.5$ Vdc $T_C = 125^\circ C$)	I_{CEX}	-	100	μA
Collector Cutoff Current ($V_{CB} = 80$ Vdc, $I_E = 0$)	I_{CBO}	-	500	mAdc
Emitter Cutoff Current ($V_{BE} = 5.0$ Vdc, $I_C = 0$)	I_{EBO}	-	2.0	mAdc
ON CHARACTERISTICS				
DC Current Gain ($I_C = 0.5$ Adc, $V_{CE} = 3.0$ Vdc) ($I_C = 2.0$ Adc, $V_{CE} = 3.0$ Vdc) ($I_C = 4.0$ Adc, $V_{CE} = 3.0$ Vdc)	h_{FE}	500 750 100	- 15,000 -	-
Collector-Emitter Saturation Voltage ($I_C = 2.0$ Adc, $I_B = 8.0$ mAdc) ($I_C = 4.0$ Adc, $I_B = 40$ mAdc)	$V_{CE(sat)}$	-	2.0 3.0	Vdc
Base-Emitter Saturation Voltage ($I_C = 4.0$ Adc, $I_B = 40$ mAdc)	$V_{BE(sat)}$	-	4.0	Vdc
Base-Emitter On Voltage ($I_C = 2.0$ Adc, $V_{CE} = 3.0$ Vdc)	$V_{BE(on)}$	-	2.8	Vdc
DYNAMIC CHARACTERISTICS				
Small-Signal Current-Gain ($I_C = 0.75$ Adc, $V_{CE} = 10$ Vdc, $f = 1.0$ MHz)	$ h_{fe} $	25	-	-
Output Capacitance ($V_{CR} = 10$ Vdc, $I_E = 0$, $f = 0.1$ MHz)	C_{ob}	-	200	pF

*Indicates JEDEC Registered Data.



NOTE:
1 LEADS, TRUE POSITIONED
WITHIN 0.25 mm (0.010) DIA.
TO DIM "A" "B" AT
MAXIMUM MATERIAL
CONDITION.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	10.80	11.05	0.425	0.435
B	7.49	7.75	0.295	0.305
C	2.41	2.67	0.095	0.105
D	0.51	0.66	0.020	0.026
F	2.92	3.18	0.115	0.125
G	2.31	2.46	0.091	0.097
H	1.27	2.41	0.050	0.095
J	0.38	0.64	0.015	0.025
K	15.11	16.64	0.595	0.655
M	3 $^\circ$ TYP		3 $^\circ$ TYP	
Q	3.76	4.01	0.148	0.158
R	1.14	1.40	0.045	0.055
S	0.64	0.89	0.025	0.035
U	3.68	3.94	0.145	0.155
V	1.02	-	0.040	-

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