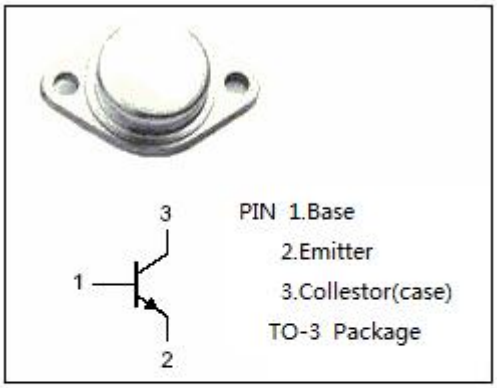
isc Silicon NPN Power Transistor — 2SD811

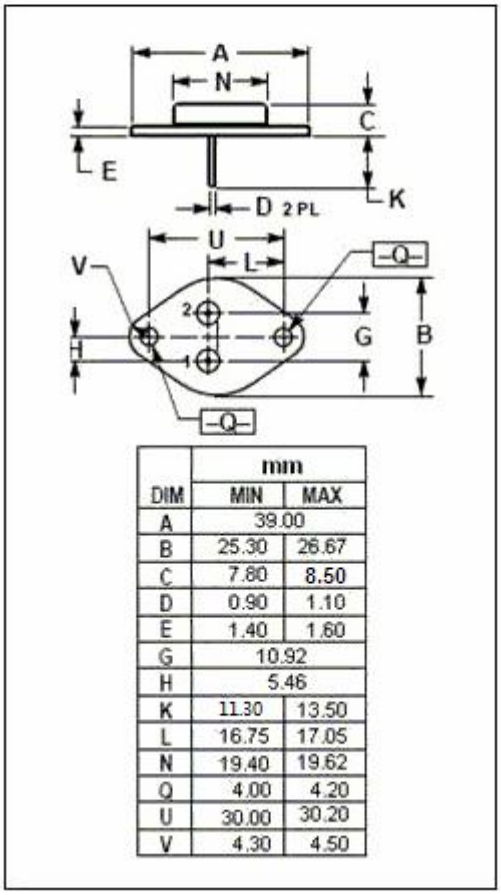


DESCRIPTION

- High Breakdown Voltage-
  : V_{CBO}= 900V (Min)
- High Switching Speed
- Low collector saturation voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.

APPLICATIONS

- Designed for use in converters, inverters, switching regulators, motor control systems etc



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	900	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	6	A
I_{CM}	Collector Current-Peak	10	A
P_C	Collector Power Dissipation @ T_C=25℃	50	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55-150	℃

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	6			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA; I_B= 0	400			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 0.8A			0.8	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4A; I_B= 0.8A			1.2	V
I_{CBO}	Collector Cutoff Current	V_{CB}=900V;I_B= 0			0.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C=0			100	uA
h_{FE-1}	DC Current Gain	I_C= 1A ; V_{CE}= 5V	10		40	
h_{FE-2}	DC Current Gain	I_C= 4A ; V_{CE}= 5V	8			
f_T	Current-Gain—Bandwidth Product	I_C= 1A ; V_{CE}= 5V	5			MHz