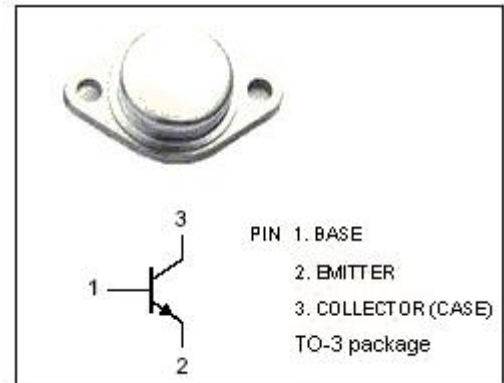


isc Silicon NPN Power Transistor
2SC2981
DESCRIPTION

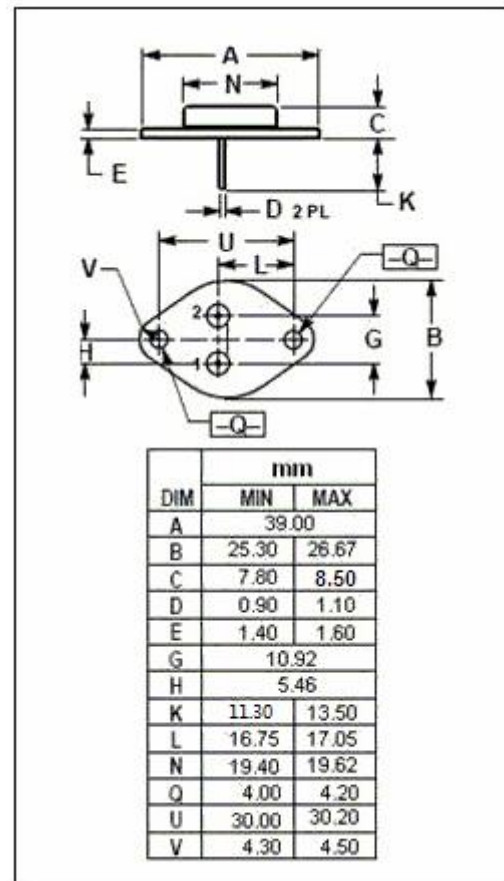
- Collector-Emitter Sustaining Voltage-
: $V_{CE(SUS)} = 800V(\text{Min})$
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 2A$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high-voltage, high-speed and high power switching applications.


ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	900	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Peak	16	A
I_B	Base Current-Continuous	4	A
P_C	Total Power Dissipation @ $T_c=25^\circ\text{C}$	100	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS
T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 10mA ; R _{BE} = ∞	800		V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 10mA; I _C = 0	7		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 0.4A		1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2A; I _B = 0.4A		1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 850V; I _E =0		100	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = 650V; R _{BE} =0		100	μ A
h _{FE-1}	DC Current Gain	I _C = 0.8A; V _{CE} = 5V	15		
h _{FE-2}	DC Current Gain	I _C = 4A; V _{CE} = 5V	7		

Switching times

t _{on}	Turn-on Time	I _C = 4A, I _{B1} = 0.8A; I _{B2} = -2A		1.0	μ s
t _{stg}	Storage Time			3.0	μ s
t _f	Fall Time			1.0	μ s

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