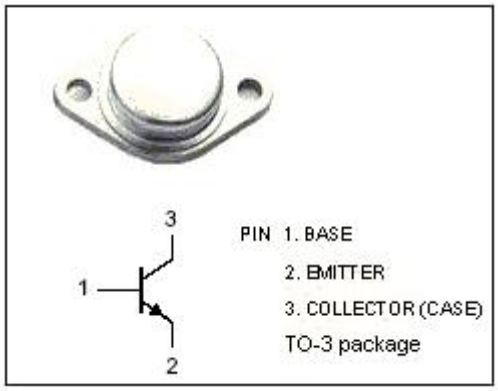
isc Silicon NPN Power Transistor 2SC2981

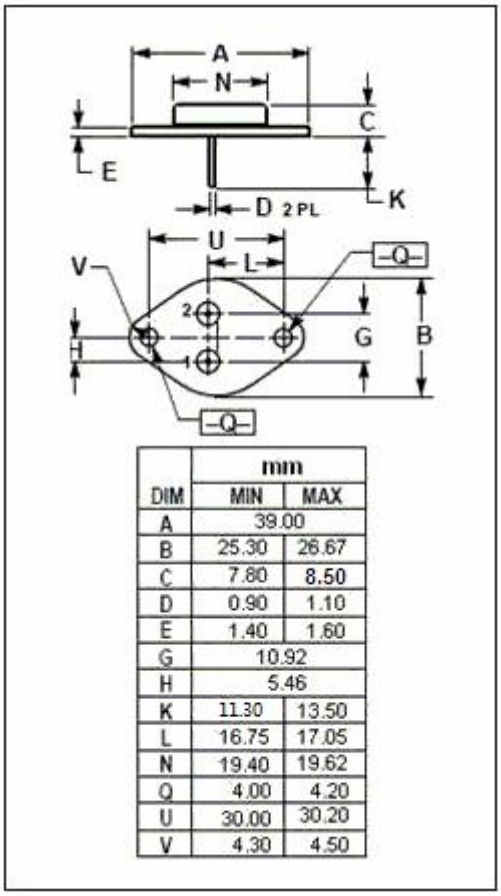
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 800V(Min)
- Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 1.0V(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.



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	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℃	100	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	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	μA
I_{CEO}	Collector Cutoff Current	V_{CE}= 650V; R_{BE}=0		100	μA
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	μs
t_{stg}	Storage Time			3.0	μs
t_f	Fall Time			1.0	μs