

isc Silicon NPN Power Transistor

2SD1183

DESCRIPTION

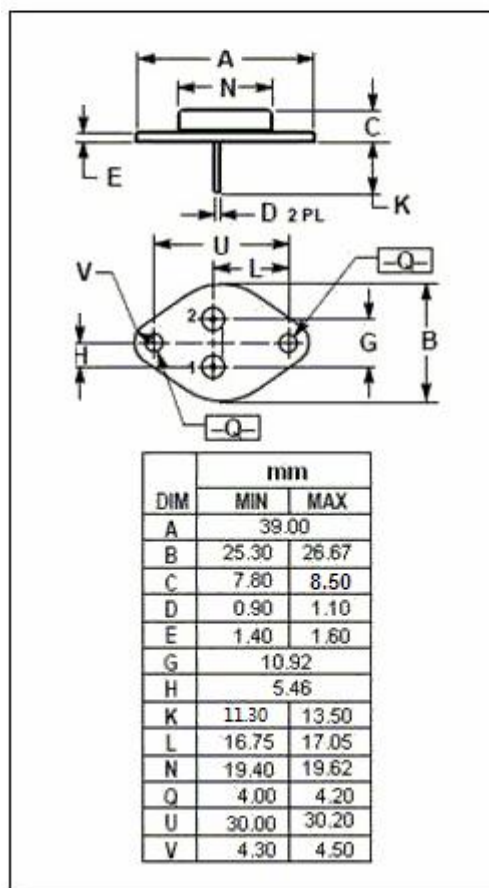
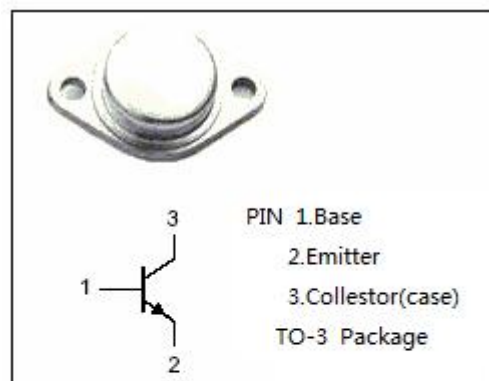
- High Breakdown Voltage-
: $V_{CBO} = 1200V$ (Min)
- High Reliability
- Wide area of safe operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1200	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current- Continuous	3	A
I_{CP}	Collector Current-Peak	5	A
P_C	Collector Power Dissipation @ $T_C T_C = 25^\circ C$	50	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA; R _{BE} = ∞	800			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA; I _E = 0	1200			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	6			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 0.2A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1A; I _B = 0.2A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 1200V; I _E =0			100	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C =0			100	μ A
h _{FE-1}	DC Current Gain	I _C = 0.3A; V _{CE} = 5V	14			
h _{FE-2}	DC Current Gain	I _C = 1A; V _{CE} = 5V	10		30	
t _f	Fall Time	I _C = 1A, I _{B1} =I _{B2} = 0.3A			1.0	μ s
t _{stg}	Storage Time				10	μ s

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