

isc Silicon NPN Power Transistor

2SD1184

DESCRIPTION

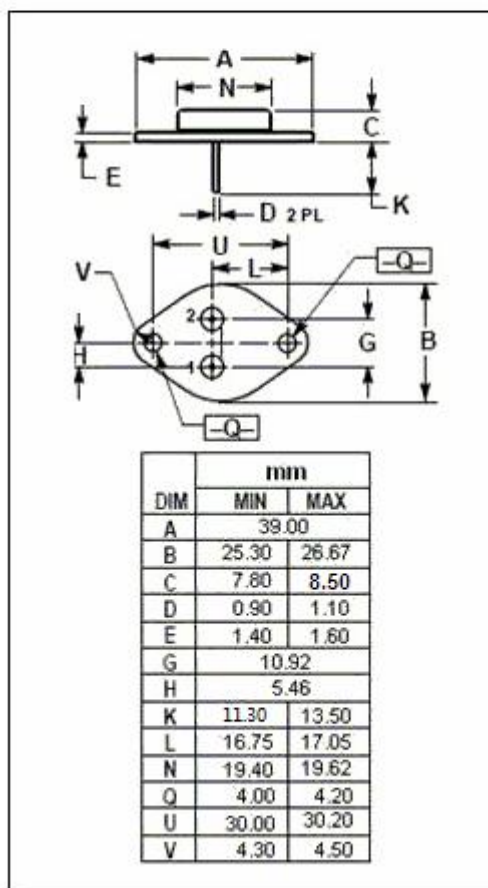
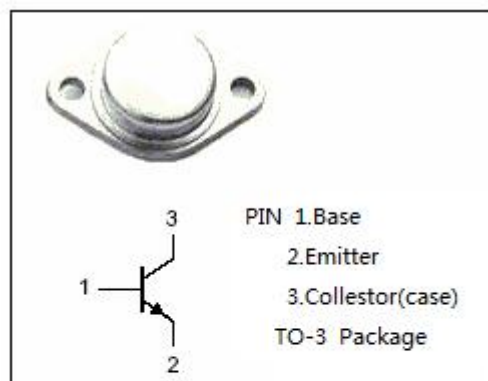
- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Reliability
- Wide area of safe operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	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

 $T_c=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = 10\text{mA}; R_{BE} = \infty$	800			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C = 1\text{mA}; I_E = 0$	1500			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = 1\text{mA}; I_C = 0$	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 1\text{A}; I_B = 0.2\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 1\text{A}; I_B = 0.2\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 1500\text{V}; I_E = 0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 6\text{V}; I_C = 0$			100	μA
h_{FE-1}	DC Current Gain	$I_C = 0.3\text{A}; V_{CE} = 5\text{V}$	14			
h_{FE-2}	DC Current Gain	$I_C = 1\text{A}; V_{CE} = 5\text{V}$	10		30	
t_f	Fall Time	$I_C = 1\text{A}, I_{B1} = I_{B2} = 0.3\text{A}$			1.0	μs
t_{stg}	Storage Time				10	μs

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