

isc Silicon NPN Power Transistor

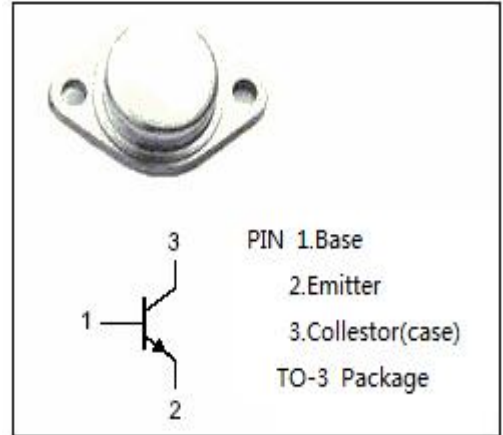
2SD1168

DESCRIPTION

- High Breakdown Voltage-
: $V_{CBO} = 1500V$ (Min)
- High Switching Speed
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

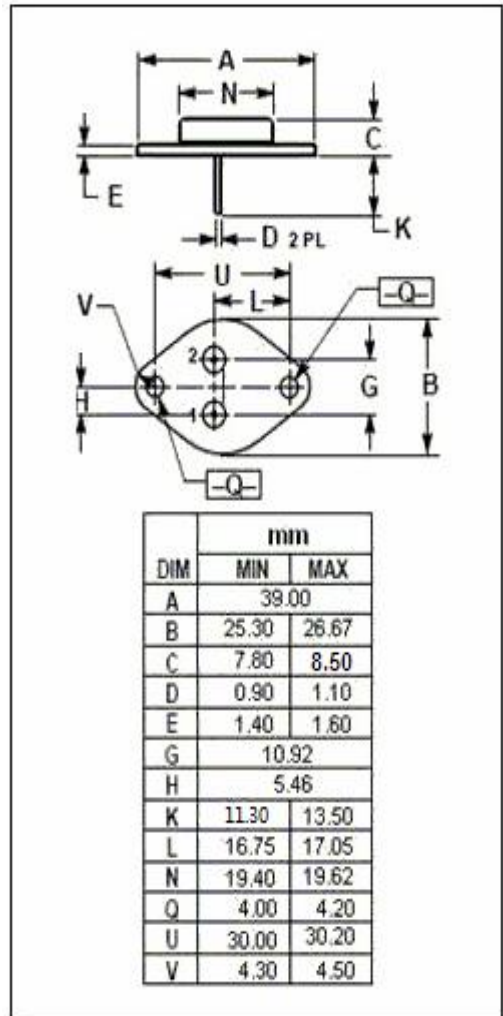
APPLICATIONS

- Designed for switching regulator applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1500	V
V_{CER}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current- Continuous	5	A
I_{CP}	Collector Current-Pulse	10	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	-65~150	$^{\circ}C$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	5			V
V _{CER(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 50mA; R _{BE} = 10Ω; L= 2mH	800			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 2A; I _B = 1A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2A; I _B = 1A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 750V; I _E = 0			50	μA
		V _{CB} = 1500V; I _E = 0			1	mA
h _{FE}	DC Current Gain	I _C = 1A; V _{CE} = 4V	9		25	
t _f	Fall Time	I _C = 1.5A, I _{B1} = 0.2A, I _{B2} = 0.7A			0.5	μs
t _{stg}	Storage Time			2.0		μs

◆ h_{FE} classifications

Q	P
9-18	15-25

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