

isc Silicon NPN Power Transistor

2SD1038

DESCRIPTION

- High Current Capability
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

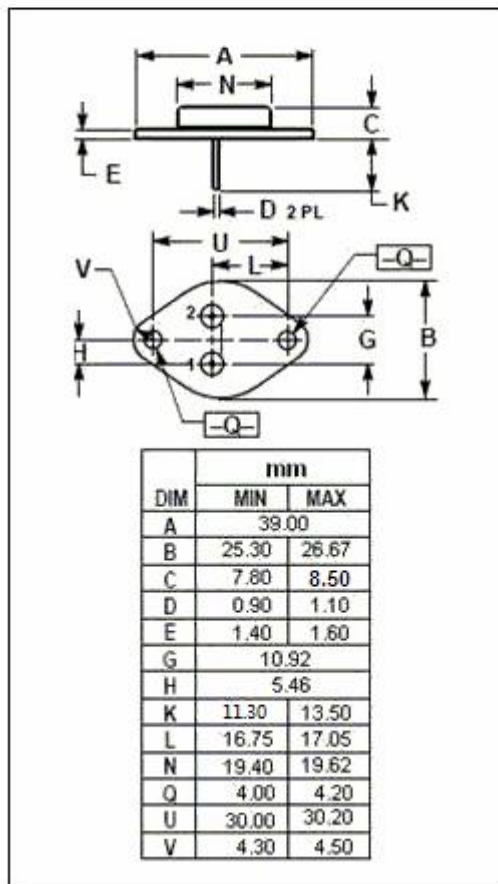
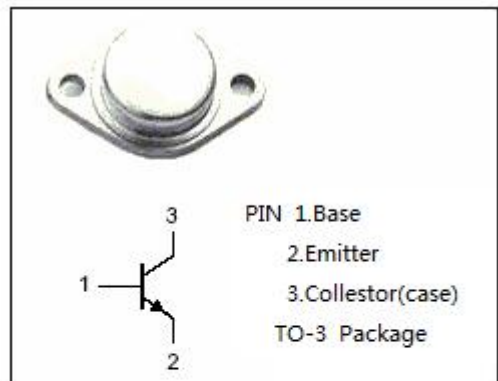
- Designed for switching and linear applications in military and industrial equipment.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	Collector- Base Voltage	150	V
V _{CEO}	Collector-Emitter Voltage	100	V
V _{EB0}	Emitter-Base Voltage	7	V
I _c	Collector Current-Continuous	40	A
I _{CM}	Collector Current-Peak	60	A
P _C	Collector Power Dissipation @T _c =25°C	180	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-65~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	0.7	°C/W



isc Silicon NPN Power Transistor**2SD1038****ELECTRICAL CHARACTERISTICS**T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V _{CEO(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA ; I _B = 0	100		V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 20A; I _B = 2A		1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 20A; I _B = 0.2A		1.5	V
I _{CBO}	Collector Base Cutoff Current	V _{CB} =150V; I _E = 0		0.1	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 100V; I _B = 0		0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7.0V; I _C = 0		0.1	mA
h _{FE-1}	DC Current Gain	I _C = 1A ; V _{CE} = 2V	60	200	
h _{FE-2}	DC Current Gain	I _C = 20A ; V _{CE} = 2V	20		
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A ; V _{CE} = 10V; f _{test} = 1MHz	10		MHz

NOTICE:

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