

isc Silicon NPN Power Transistor
2SC1672
DESCRIPTION

- Collector-Emitter Sustaining Voltage-
 $V_{CEO(SUS)} = 120V(\text{Min})$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

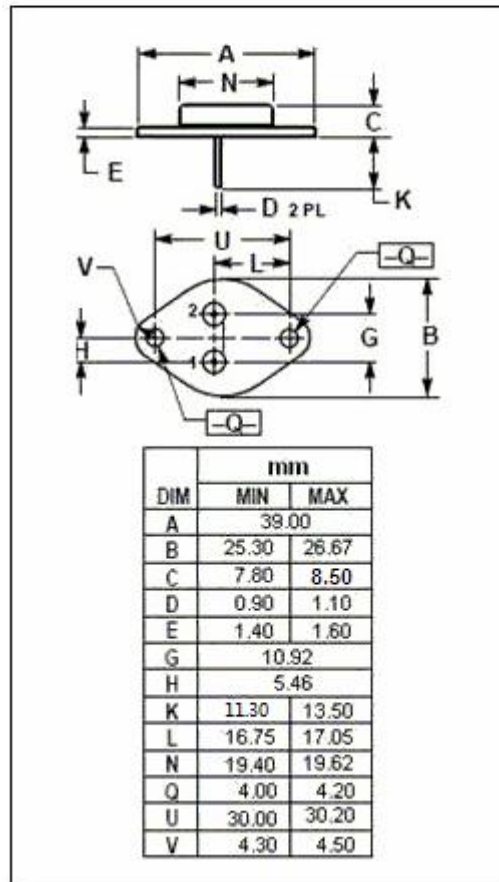
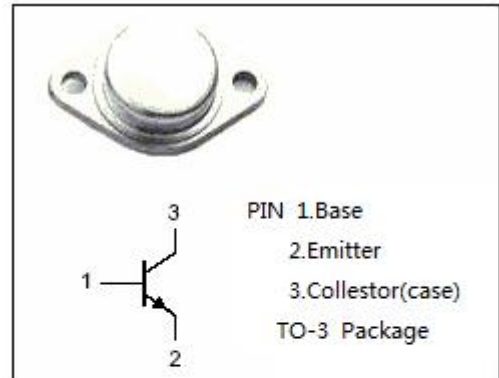
- Automotive ignition
- Switching regulator
- Motor control applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	150	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	6	V
I_c	Collector Current-Continuous	25	A
P_c	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	120	W
T_j	Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~175	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R_{thj-c}	Thermal Resistance, Junction to Case	1.25	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CE0(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 30mA ; I _B = 0	120			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 1.0A			0.6	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 20A; I _B = 2.0A			1.2	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 20A; I _B = 2.0A			2.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 120V, I _E = 0			0.1	mA
I _{CEO}	Collector Cutoff Current	V _{CE} = 120V, I _B = 0			0.1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0			0.1	mA
h _{FE-1}	DC Current Gain	I _C = 13A; V _{CE} = 2V	20		100	
h _{FE-2}	DC Current Gain	I _C = 20A; V _{CE} = 4V	10			

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