

isc Silicon NPN Power Transistor

MJ6308

DESCRIPTION

- 700V Collector-Base Breakdown Capability
- Excellent Dynamic Saturation Characteristics
- Fast swithing
- Low Saturation Voltage
- Advanced Technology Replacement for the 2N6308

APPLICATIONS

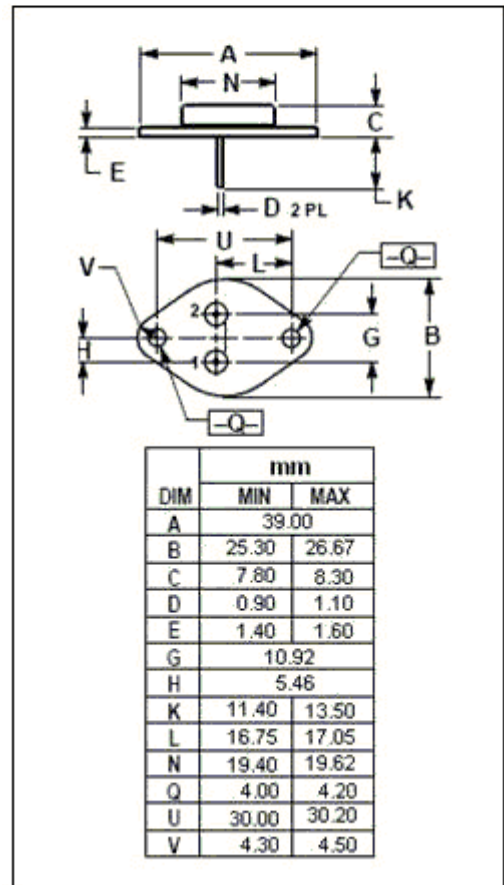
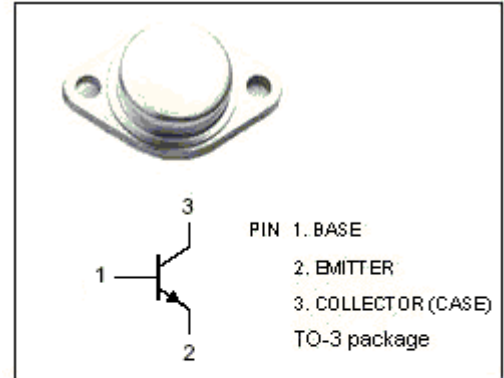
- Designed in circuits requiring good dynamio saturation characteristics in swithing power supply applications and other inductive swithing circuits.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	700	V
V _{CES}	Collector-Emitter Sustaining Voltage	380	V
V _{EBO}	Emitter-Base Voltage	10	V
I _C	Collector Current-Continuous	8	A
I _B	Base Current-Continuous	4	A
P _C	Collector Power Dissipation@T _C =25°C	140	W
T _J	Junction Temperature	200	°C
T _{stg}	Storage Temperature Range	-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance,Junction to Case	1.25	°C/W



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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=10\text{mA}; I_B=0$	380			V
$V_{(BR)EBO}$	Emitter-Collector Breakdown Voltage	$I_E=1.0\text{mA}; I_C=0$	10			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}; I_B=0.4\text{A}$			1	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=6\text{A}; I_B=1\text{A}$			1	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=1\text{A}$			1.5	V
I_{CES}	Collector Cutoff Current	$V_{CE}=700\text{V}; V_{BE}=0\text{V}$ $V_{CE}=700\text{V}; V_{BE}=0\text{V}; T_C=100^{\circ}\text{C}$			0.1 1.5	mA
I_{EBO}	Emitter Cutoff current	$V_{EB}=10\text{V}; I_C=0$			10	μA
h_{FE}	DC Current Gain	$I_C=8\text{A}; V_{CE}=5\text{V}$	5		20	
C_{ob}	Output Capacitance	$V_{CE}=10\text{V}; I_E=0; f_{test}=1.0\text{KHz}$		100		pF