

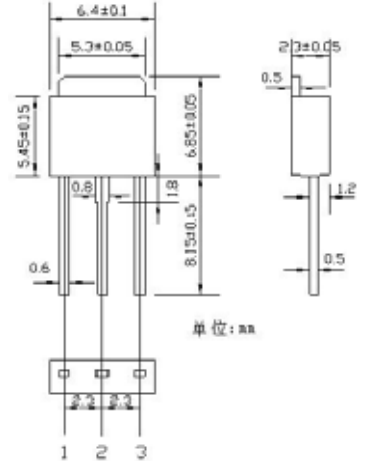
Marking code: MJD44H11

Silicon NPN POWER triode

1: base 2: collector 3: emitter

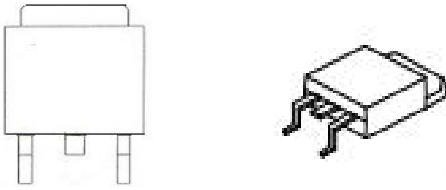
encapsulation mode: TO-251/TO-252

Outline example



Designed for general purpose power and switching

such as output or driver stages in applications such as switching regulators, converters, and power amplifiers



Device	Device Package
MJD44H11	TO252
MJD44H11IP	TO251

Maximum ratings ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Emitter Breakdown Voltage	V_{CEO}	80	V
Emitter-Base Breakdown Voltage	V_{EBO}	5	V
Collector Current	I_C	8	A
Collector Power Dissipation	P_C	20	W
Junction Temperature	T_J	$-65 \sim 150$	$^\circ\text{C}$
Storage Temperature	T_{stg}	$-65 \sim 150$	$^\circ\text{C}$

Electrical Characteristics ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition	Min	Max	Unit
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}$	$I_C=30A \ I_B=0$	80		V
Emitter-Base Breakdown Voltage	V_{EBO}	$I_E=100\mu A \ I_C=0$	5		V
Collector Cutoff Current	I_{CES}	$V_{CE}=80V \ V_{BE}=0$		1	mA
Emitter Cutoff Current	I_{EBO}	$V_{CE}=5V \ I_B=0$		5	mA
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=5A \ I_B=0.5A$		1.5	V
Collector-Base Saturation Voltage	$V_{BE(sat)}$	$I_C=5A \ I_B=0.5A$		2	V
DC Current Gain	HFE	$V_{CE}=5V \ I_C=1A$	65	350	
transition frequency	f_T	$V_{CE}=5V \ I_C=1A \ f=3MHz$	10		MHz

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