

DESCRIPTION

- Low Collector-Emitter Saturation Voltage
: $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 8A$
- Fast Switching Speeds
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

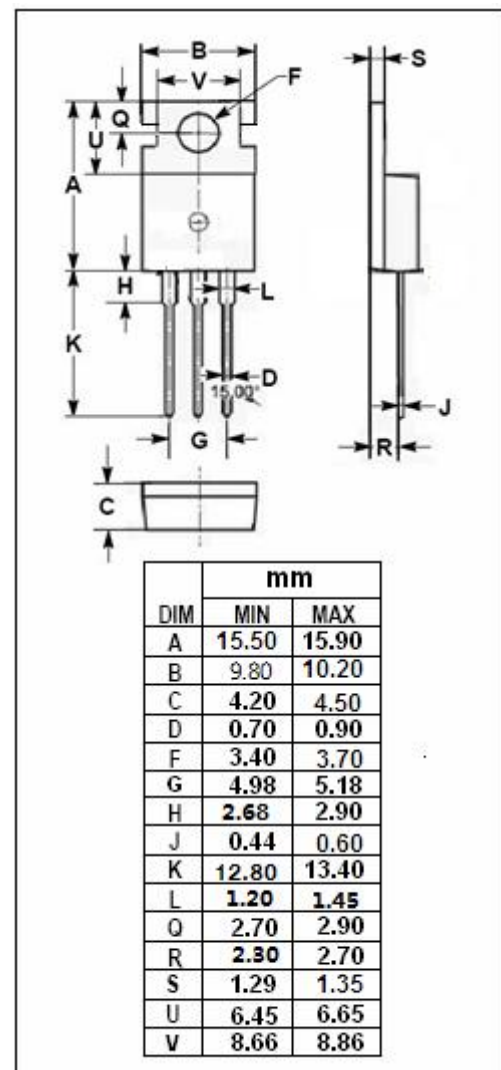
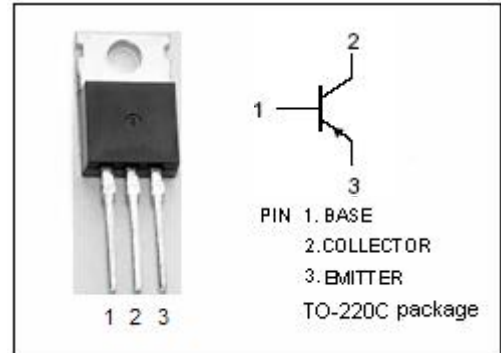
- This device is designed for power amplifier, regulator and Switching circuits where speed is important

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-8	A
I_{CM}	Collector Current-Peak	-16	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ\text{C}$	60	W
T_J	Junction Temperature	-55~150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.1	$^\circ\text{C}/\text{W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	62.5	$^\circ\text{C}/\text{W}$



ELECTRICAL CHARACTERISTICST_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -8A ; I _B = -0.4 A			-1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -8A ; I _B = -0.8 A			-1.5	V
I _{CES}	Collector Cutoff Current	V _{CE} =Rated V _{CEO} ; V _{BE} = 0			-10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-100	μ A
h _{FE-1}	DC Current Gain	I _C = -8A ; V _{CE} = -5V	100			
h _{FE-2}	DC Current Gain	I _C = -10A ; V _{CE} = -5V	80			
h _{FE-3}	DC Current Gain	I _C = -12A ; V _{CE} = -5V	65			
f _T	Current-Gain—Bandwidth Product	I _C =-0.5A; V _{CE} =-10V;		25		MHz

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