

Silicon PNP Power Transistor

MJE1123

DESCRIPTION

- Collector-Emitter Breakdown Voltage
 $-V_{(BR)CEO} = -40V(\text{Min})$
- Low Saturation Voltage-
 $V_{CE(sat)} = -0.75V(\text{Max})@ (I_C = -4A)$

APPLICATIONS

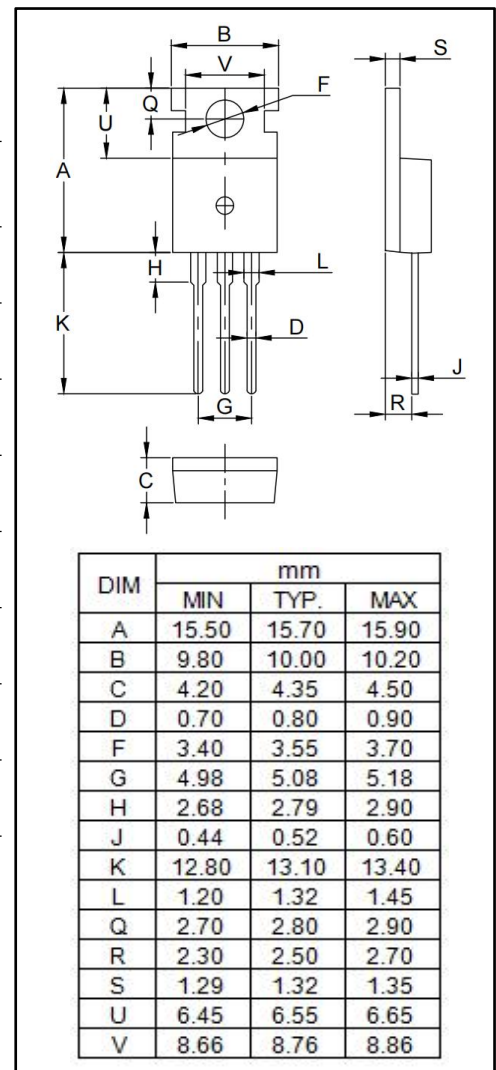
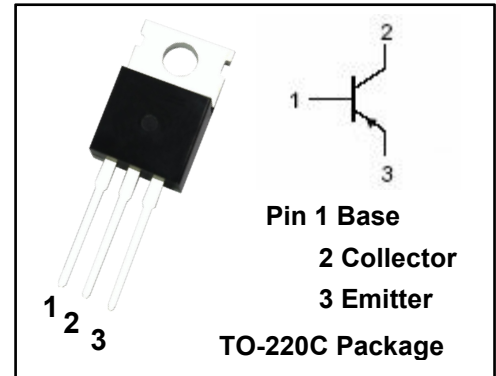
- Designed for use in general purpose power amplifier and switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-40	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-4.0	A
I_{CM}	Collector Current-Continuous	-8.0	A
P_{CM}	Collector Power Dissipation	75	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.67	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise specified)

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V _{CEO}	Collector-Emitter Breakdown Voltage	I _C = -1mA; I _B = 0A	-40	--	--	V
V _{EBO}	Emitter-Base Breakdown Voltage	I _E = -0.1mA; I _C = 0A	-5	--	--	V
I _{CEO}	Collector Cutoff Current	V _{CB} = -40V; I _E = 0A	--	--	-250	uA
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -1A; I _B = -20mA	--	--	-0.3	V
		I _C = -1A; I _B = -50mA	--	--	-0.25	V
		I _C = -1A; I _B = -120mA	--	--	-0.2	V
		I _C = -2A; I _B = -50mA	--	--	-0.4	V
		I _C = -2A; I _B = -120mA	--	--	-0.35	V
		I _C = -4A; I _B = -120mA	--	--	-0.75	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -1A; I _B = -20mA	--	--	-0.95	V
		I _C = -2A; I _B = -50mA	--	--	-1.2	V
		I _C = -4A; I _B = -120mA	--	--	-4.4	V
V _{BE(on)}	Base-Emitter on voltage	I _C = -1A; V _{CE} = -1V	--	--	-0.9	V
		I _C = -2A; V _{CE} = -1V	--	--	-1.0	V
		I _C = -4A; V _{CE} = -1V	--	--	-1.2	V
h _{FE}	DC Current Gain	V _{CE} = -10V; I _C = -1A	100	--	225	--
		V _{CE} = -10V; I _C = -2A	80	--	180	--
		V _{CE} = -10V; I _C = -4A	45	--	100	--

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