

isc Silicon NPN Power Transistor
MJE3055T
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V(\text{Min})$
- High DC Current Gain-
: $h_{FE} = 20-100@I_C = 4A$
- Complement to Type MJE2955T
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

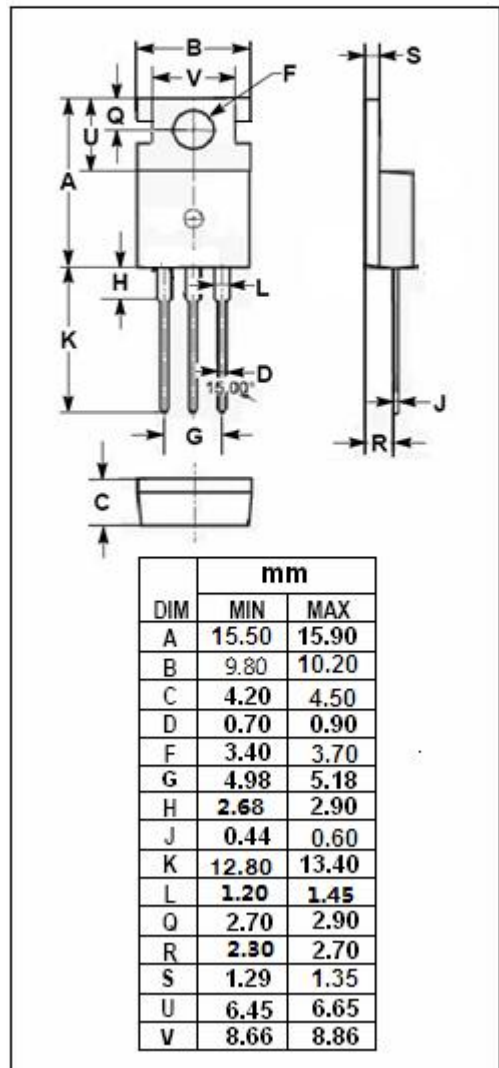
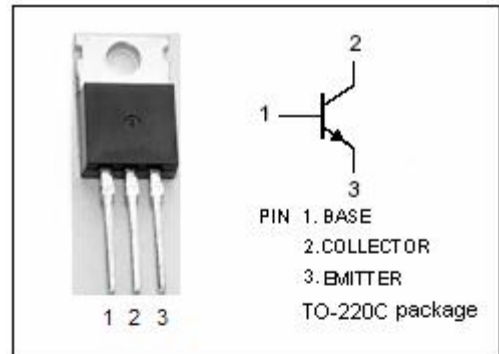
- Designed for use in general-purpose amplifier and switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	6	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	75	W
T_J	Junction Temperature	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	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 _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 50mA; I _B = 0	60			V
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 4A; I _B = 0.4A			1.1	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 10A; I _B = 3.3A			8.0	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 4A; V _{CE} = 4V			1.8	V
I _{CEO}	Collector Cutoff Current	V _{CE} = 30V; I _B = 0			0.7	mA
I _{CBO}	Collector Cutoff Current	V _{CB} = 70V; I _E = 0 V _{CB} = 70V; I _E = 0; T _C = 150°C			1.0 10	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			5.0	mA
h _{FE-1}	DC Current Gain	I _C = 4A; V _{CE} = 4V	20		100	
h _{FE-2}	DC Current Gain	I _C = 10A; V _{CE} = 4V	5			
f _T	Current Gain-Bandwidth Product	I _C = 0.5A; V _{CE} = 10V; f= 500kHz	2.0			MHz

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