

isc Silicon NPN Power Transistor

MJE520

DESCRIPTION

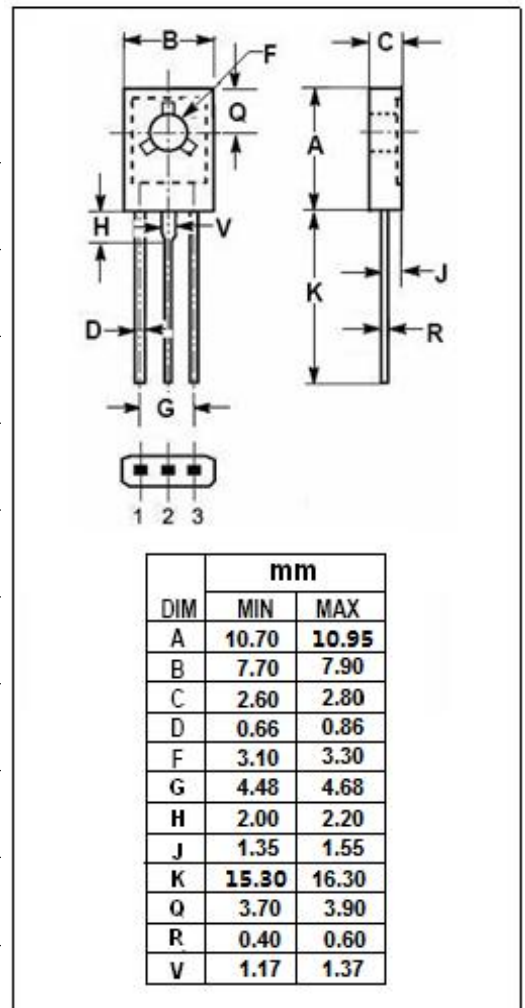
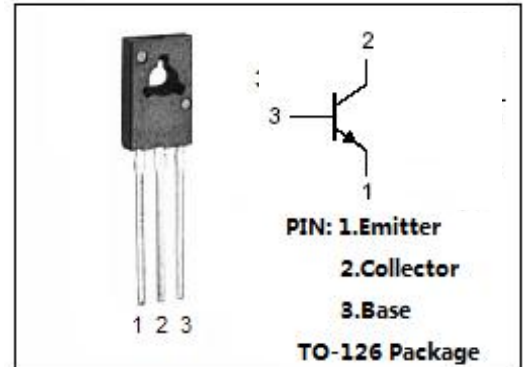
- High Collector Current- $I_C = 3.0A$
- High Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 30V(\text{Min})$
- Good Linearity of h_{FE}
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	30	V
V_{CEO}	Collector-Emitter Voltage	30	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current-Continuous	3	A
I_{CP}	Collector Current-Pulse	7	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	25	W
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-65~150	$^\circ C$



isc Silicon NPN Power Transistor**MJE520****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 100 μ A ; I _E = 0	30			V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 100mA	30			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 100 μ A ; I _C = 0	4			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 500mA; I _B = 50mA			0.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 50V; I _E = 0			10	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0			10	μ A
h _{FE-1}	DC Current Gain	I _C = 1 A ; V _{CE} = 1 V	20			
f _T	Current-Gain—Bandwidth Product	I _C = 50mA ; V _{CE} = 10V	30			MHz
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V, f _{test} = 1MHz		20		pF

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