

isc Silicon NPN Power Transistor

MJE521

DESCRIPTION

- Collector–Emitter Sustaining Voltage–
: $V_{CEO(SUS)} = 40\text{ V(Min)}$
- DC Current Gain–
: $h_{FE} = 40(\text{Min}) @ I_C = 1\text{ A}$
- Complement to Type MJE371
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

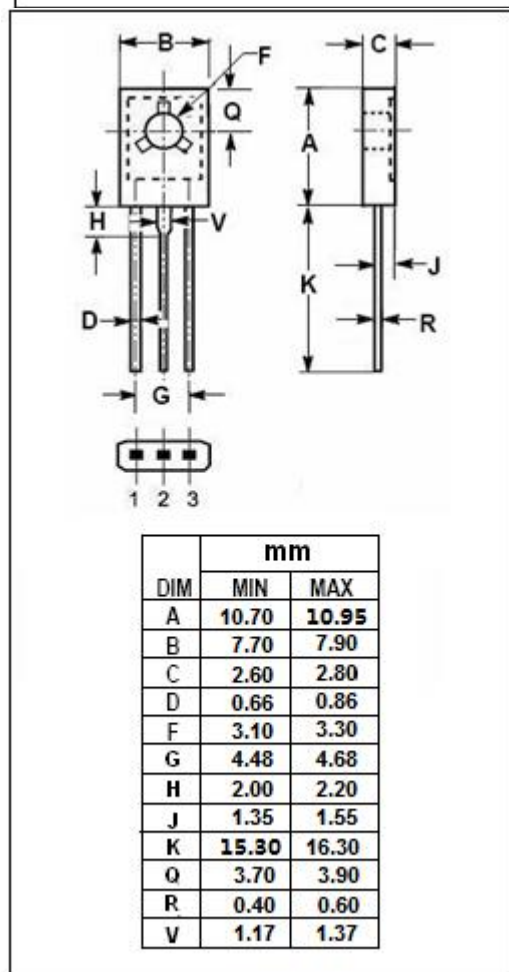
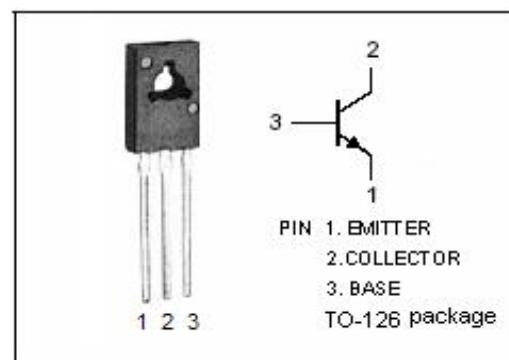
- Designed for use in general–purpose amplifier and switching circuits applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	4	V
I_C	Collector Current-Continuous	4	A
I_{CM}	Collector Current-Peak	8	A
I_B	Base Current-Continuous	2	A
P_C	Collector Power Dissipation $T_C=25^\circ\text{C}$	40	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	3.12	$^\circ\text{C/W}$



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ELECTRICAL CHARACTERISTICS

 $T_C = 25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = 50\text{mA}; I_B = 0$	40		V
I_{CBO}	Collector Cutoff Current	$V_{CB} = 30\text{V}; I_E = 0$		0.1	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = 4\text{V}; I_C = 0$		0.1	mA
h_{FE}	DC Current Gain	$I_C = 1\text{A}; V_{CE} = 1\text{V}$	40		

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