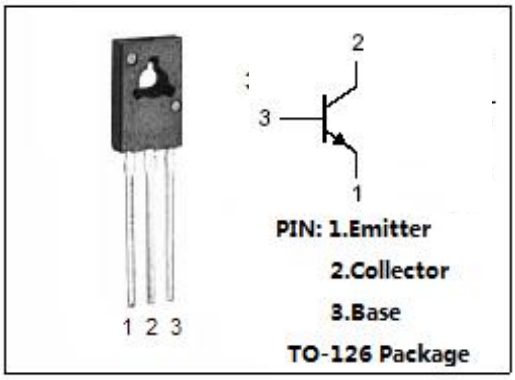
isc Silicon NPN Power Transistor — MJE520



DESCRIPTION

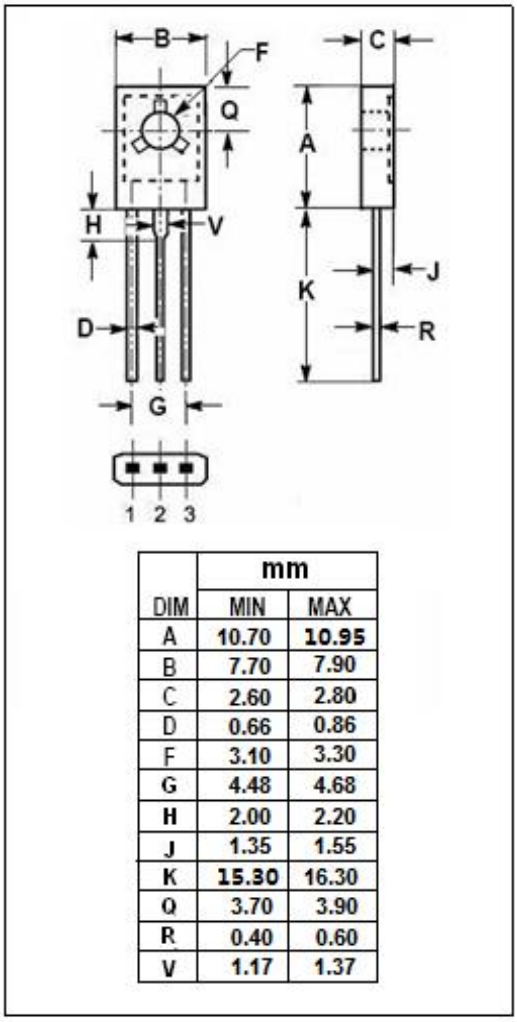
- High Collector Current-I_C= 3.0A
- High Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 30V(Min)
- Good Linearity of h_{FE}
- Low Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for power amplifier applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

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℃	25	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃



DIM	mm MIN	mm MAX
A	10.70	10.95
B	7.70	7.90
C	2.60	2.80
D	0.66	0.86
F	3.10	3.30
G	4.48	4.68
H	2.00	2.20
J	1.35	1.55
K	15.30	16.30
Q	3.70	3.90
R	0.40	0.60
V	1.17	1.37

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ELECTRICAL CHARACTERISTICS

T_C=25℃ 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 Vltage	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