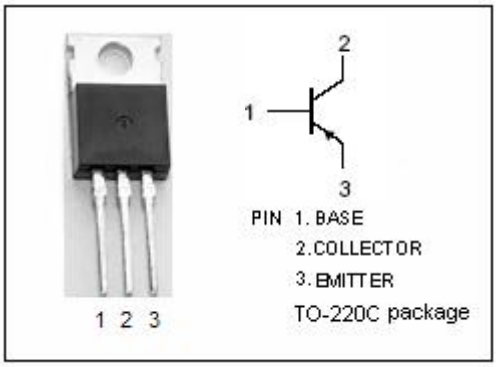
isc Silicon PNP Power Transistor — MJE9780

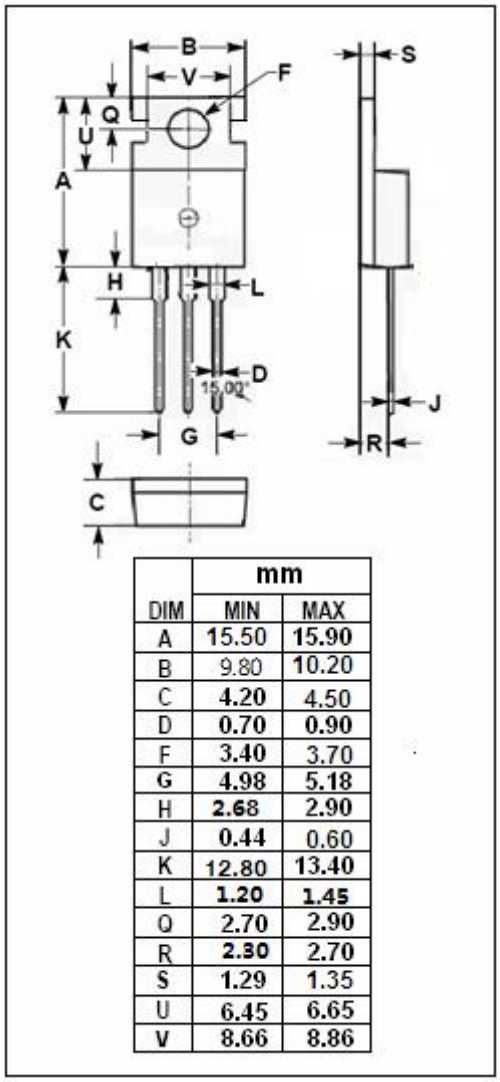


DESCRIPTION

- Standard TO–220 Package
- Gain Range of 50 – 200 at 500 mAdc/10 volts
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed forvertical output of 14–inch to 17–inch televisions and CRT monitors, as well as other applications requiring a 150 volt PNP transistor.



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-200	V
V_{CEO}	Collector-Emitter Voltage	-150	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Collector Current-Continuous	-3	A
I_{CM}	Collector Current-Peak	-5	A
P_C	Total Power Dissipation @ T_C=25℃	40	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	3.12	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= -50mA ; I_B= 0	-150			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= -5mA ; I_C= 0	-6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -0.5A; I_B= -50mA			-0.8	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= -0.5A ; V_{CE}= -4V			-1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -150V ; I_E= 0			-10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0			-10	μA
$h_{FE\ 1}$	DC Current Gain	I_C= -0.5A ; V_{CE}= -10V	50		200	
$h_{FE\ 2}$	DC Current Gain	I_C= -0.05A ; V_{CE}= -10V	60			
f_T	Current-Gain—Bandwidth Product	I_C= -0.5A;V_{CE}= -10V;f_{test}= 1MHz		5		MHz