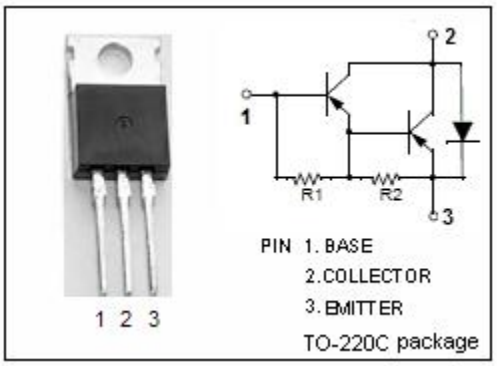
isc Silicon PNP Darlington Power Transistor MJE700T

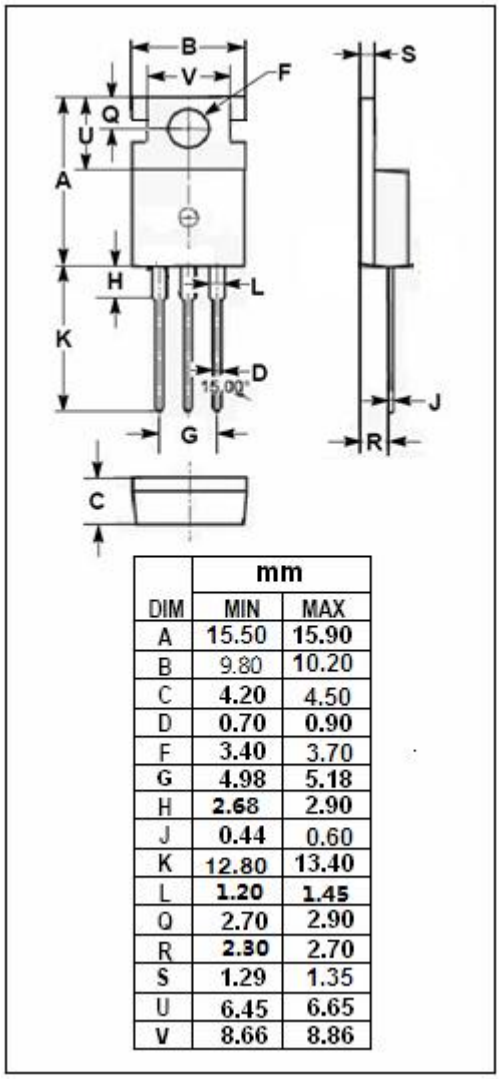
DESCRIPTION

- Collector–Emitter Breakdown Voltage—
  : $V_{(BR)CEO}$ = -60 V
- DC Current Gain—
  : h_{FE} = 750(Min) @ I_C= -1.5 A
  = 100(Min) @ I_C= -4A
- Complement to Type MJE800T
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for general-purpose amplifier and low-speed switching applications



DIM	mm MIN	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	-60	V
V_{CEO}	Collector-Emitter Voltage	-60	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-4	A
I_B	Base Current	-0.1	A
P_C	Collector Power Dissipation T_C=25℃	50	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	2.5	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	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= -1.5A; I_B= -30mA		-2.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= -4A; I_B= -40mA		-3.0	V
$V_{BE(on)-1}$	Base-Emitter On Voltage	I_C= -1.5A; V_{CE}= -3V		-2.5	V
$V_{BE(on)-2}$	Base-Emitter On Voltage	I_C= -4A; V_{CE}= -3V		-3.0	V
I_{CEO}	Collector Cutoff Current	V_{CE}= -60V; I_B= 0		-0.1	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= -60V; I_E= 0 V_{CB}= -60V; I_E= 0;T_C= 100℃		-0.1 -0.5	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= -5V; I_C= 0		-2.0	mA
h_{FE-1}	DC Current Gain	I_C= -1.5 A ; V_{CE}= -3V	750		
h_{FE-2}	DC Current Gain	I_C= -4A ; V_{CE}= -3V	100		