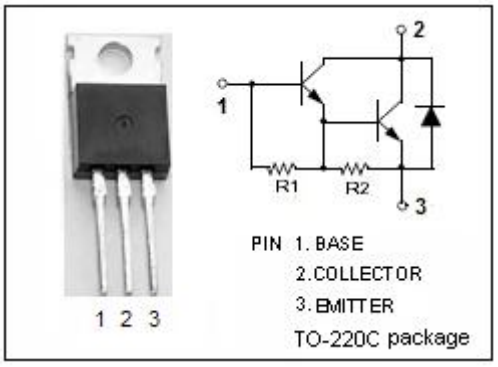
isc Silicon NPN Darlington Power Transistor MJE803T

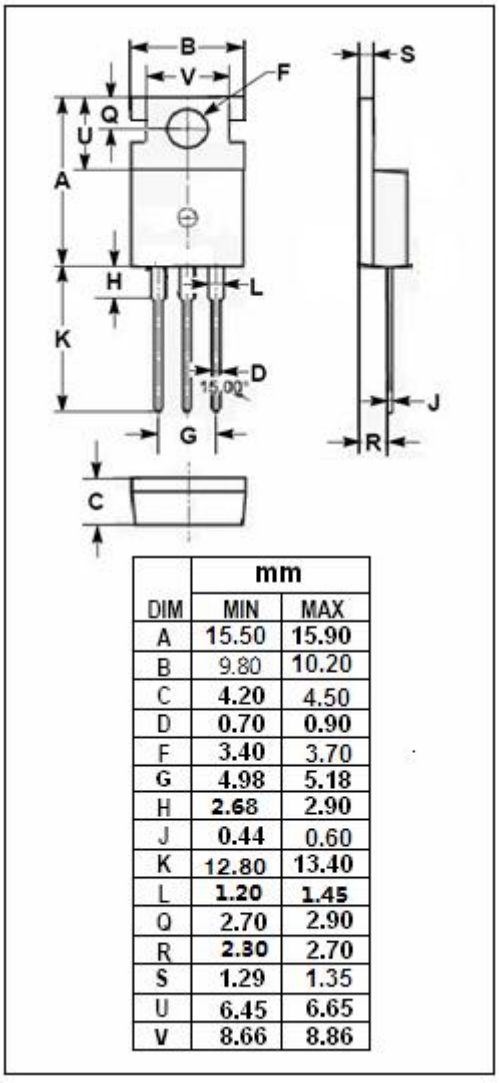
DESCRIPTION

- Collector–Emitter Breakdown Voltage—
  : $V_{(BR)CEO}$ = 80 V
- DC Current Gain—
  : h_{FE} = 750(Min) @ I_C= 2A
  = 100(Min) @ I_C= 4A
- Complement to Type MJE703T
- 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	80	V
V_{CEO}	Collector-Emitter Voltage	80	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	80		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 40mA		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= 2A; 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}= 80V; I_B= 0		0.1	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 80V; I_E= 0 V_{CB}= 80V; 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= 2A ; V_{CE}= 3V	750		
h_{FE-2}	DC Current Gain	I_C= 4A ; V_{CE}= 3V	100		