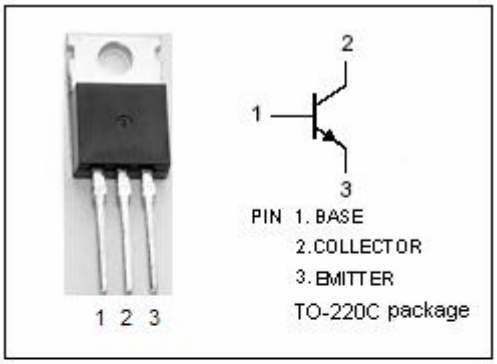
isc Silicon NPN Power Transistor — MJE2801T

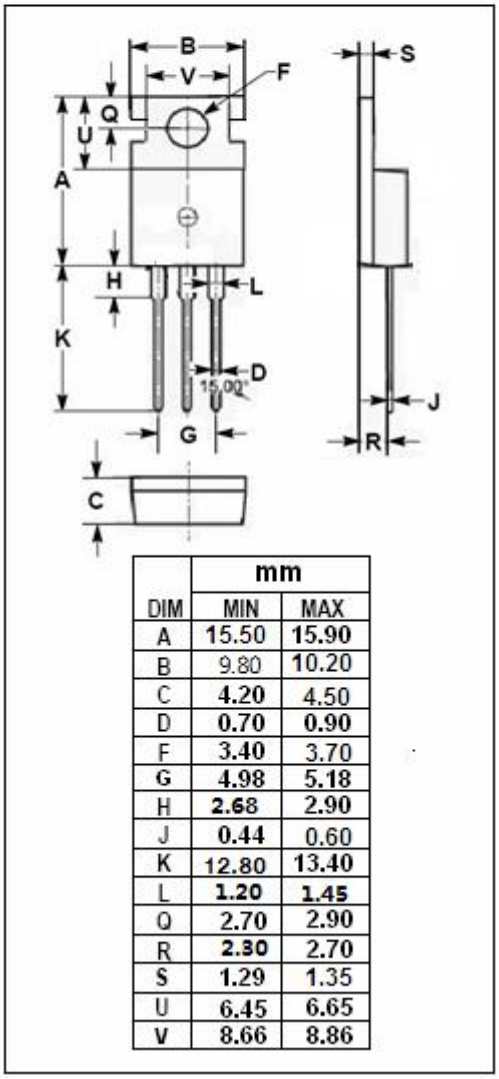


DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$ = 60V(Min)
- High DC Current Gain-
  : h_{FE}= 25-100@I_C= 3A
- Complement to Type MJE2901T
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for use as an output device in complementary audio amplifiers up to 35 watts music power per channel.



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	4	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	5	A
P_C	Collector Power Dissipation @ T_C=25℃	75	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	1.67	℃/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	60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 0.4A			1.1	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 3A ; V_{CE}= 2V			1.4	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 60V; I_E= 0 V_{CB}= 60V; I_E= 0;T_C= 150℃			0.1 2.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 4V; I_C=0			1.0	mA
h_{FE}	DC Current Gain	I_C= 3A ; V_{CE}= 2V	25		100	