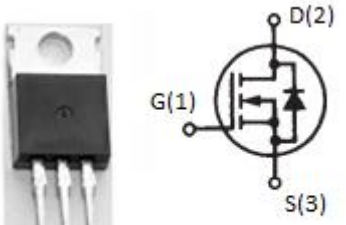
isc Silicon NPN Power Transistor — MJE15036



pin 1.Gate
2.Drain
3.Source
TO-220 package

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 250V(Min)
- DC current gain -
  : h_{FE} = 5000 (Min) @I_C= 0.5 A
  : h_{FE} = 3000 (Min) @I_C= 2.0 A
- Complement to Type MJE15037
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

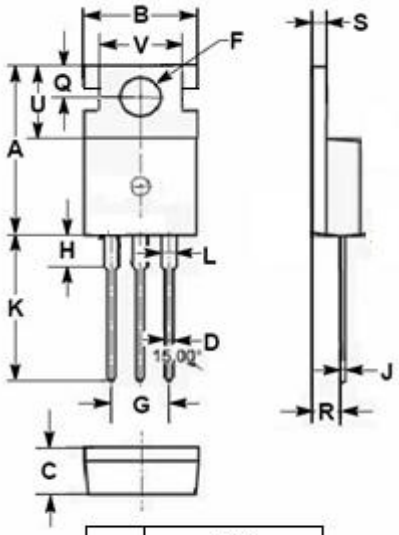
- Designed for use as high–frequency drivers in audio amplifiers.

ABSOLUTE MAXIMUM RATINGS (Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	250	V
V_{CEO}	Collector-Emitter Voltage	250	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	8	A
I_B	Base Current	2	A
P_C	Collector Power Dissipation @T_a=25℃	2	W
	Collector Power Dissipation @T_C=25℃	50	
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.5	℃/W



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

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ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 10mA ;I_B= 0	250		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 1A ;I_B= 0.1A		1.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 1A ; V_{CE}= 5V		1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 250V; I_E= 0		1	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0		1	μA
h_{FE-1}	DC Current Gain	I_C= 1A ; V_{CE}= 5V	5000		
h_{FE-2}	DC Current Gain	I_C= 0.5A ; V_{CE}= 5V	5000		
h_{FE-3}	DC Current Gain	I_C= 2A ; V_{CE}= 5V	3000		

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