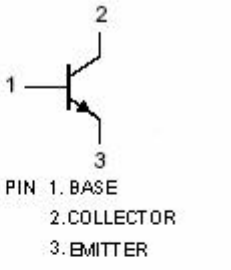
isc Silicon NPN Power Transistor 2N5297

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 60V(Min)
- Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$ = 1.0V(Max)@ I_C= 1.5A, I_B= 0.15A
- Wide Area of Safe Operation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

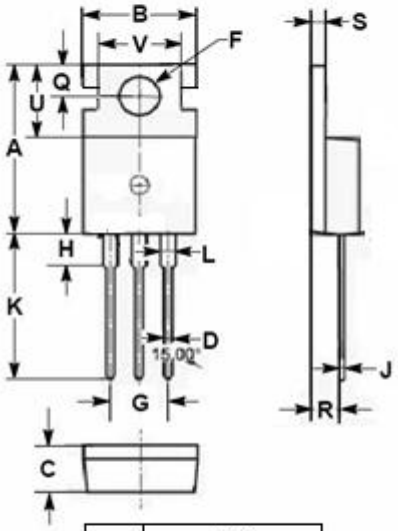
- Designed for medium power switching amplifier applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	4.0	A
I_B	Base Current	2.0	A
P_C	Collector Power Dissipation @ T_C=25℃	36	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	3.47	℃/W



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

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C=30mA ;I_B= 0	60		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}= 4V		1.3	V
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0		1.0	mA
h_{FE}	DC Current Gain	I_C= 1.5A; V_{CE}= 4V	20	80	
f_T	Current-Gain—Bandwidth Product	I_C= 0.2A; V_{CE}= 4V	0.8		MHz
Switching Times					
t_{on}	Turn-On Time	I_C= 1A; I_B= 0.1A; V_{CC}= 30V		5.0	μs
t_{off}	Turn-Off Time			15	μs

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