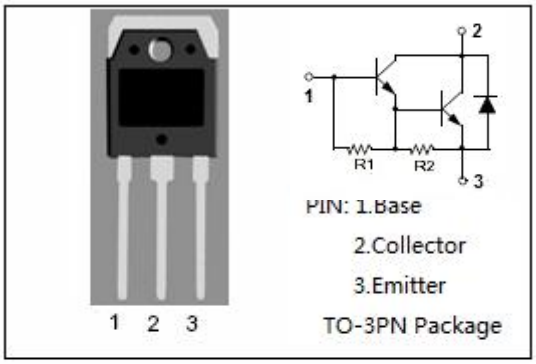
isc Silicon NPN Darlington Power Transistor 2SD1044



DESCRIPTION

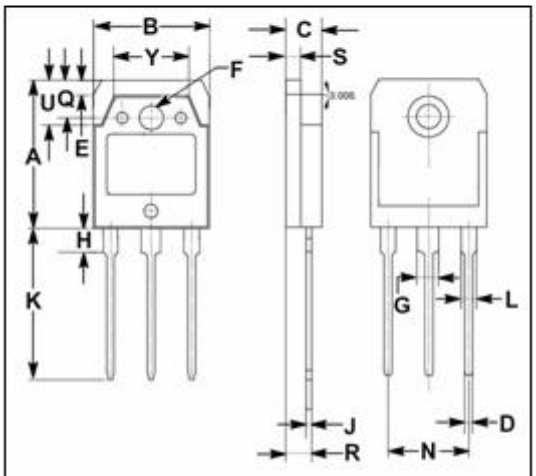
- High DC Current Gain
  : h_{FE}= 700(Min.)@ I_C= 1A, V_{CE}= 4V
- High Collector-Emitter Breakdown Voltage-
  : $V_{(BR)\ CEO}$= 80V(Min)
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high power amplifier applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CER}	Collector-Emitter Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	6	A
I_B	Base Current- Continuous	3	A
P_C	Collector Power Dissipation @T_C=25℃	60	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V_{CER}	Collector-Emitter Breakdown Voltage	I_C= 50mA, R_{BE}= 1kΩ	100			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 30mA, I_B= 0	80			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 3A, I_B= 30mA			1.7	V
I_{CBO}	Collector Cutoff current	V_{CB}= 100V, I_E= 0			10	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0			10	mA
h_{FE}	DC Current Gain	I_C= 1A; V_{CE}= 4V	700		10000	

◆ **h_{FE} classifications**

Q	P	O
700-2500	2000-5000	4000-10000