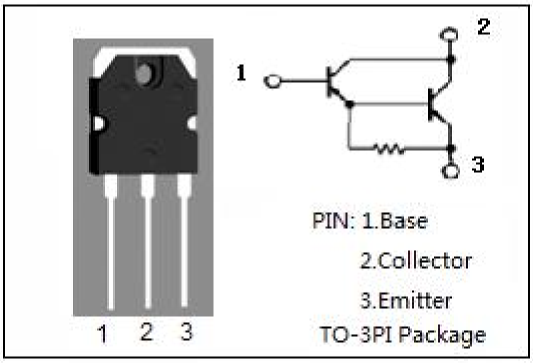
INCHANGE SEMICONDUCTOR

isc Silicon PNP Darlington Power Transistor 2SB1558

DESCRIPTION

- High DC Current Gain-
  : h_{FE}= 5000(Min)@I_C= -7A
- Low-Collector Saturation Voltage-
  : $V_{CE(sat)}$= -2.5V(Max.)@I_C= -7A
- Complement to Type 2SD2387
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

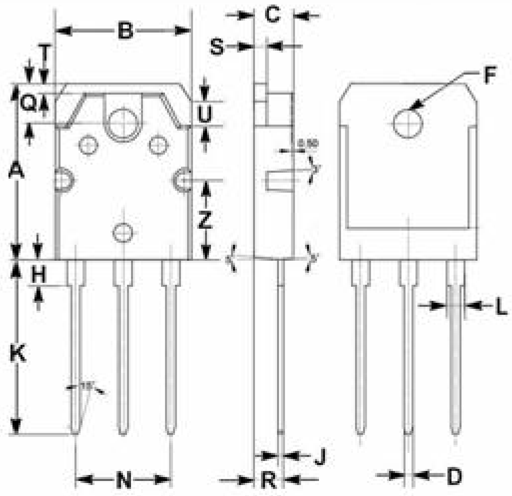


APPLICATIONS

- Designed for power amplifier applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-140	V
V_{CEO}	Collector-Emitter Voltage	-140	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current-Continuous	-8	A
I_B	Base Current- Continuous	-0.1	A
P_C	Collector Power Dissipation @ T_C=25℃	80	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.60	20.10
B	15.30	15.70
C	4.00	4.60
D	0.90	1.10
F	3.20	3.40
H	2.90	3.10
J	0.50	0.70
K	19.90	21.30
L	1.20	2.20
N	10.80	11.00
Q	4.40	4.60
R	3.30	3.35
S	1.40	1.60
T	1.00	1.20
U	2.10	2.30
Z	7.90	9.10

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	-140			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= -7A; I_B= -7mA			-2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= -7A; V_{CE}= -5V			-3.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= -140V; I_E= 0			-5.0	μA
h_{FE-1}	DC Current Gain	I_C= -7A; V_{CE}= -5V	5000		30000	
h_{FE-2}	DC Current Gain	I_C= -12A; V_{CE}= -5V	2000			
C_{OB}	Collector Output Capacitance	I_E= 0; V_{CB}= -10V; f= 1MHz		170		pF
f_T	Current-Gain—Bandwidth Product	I_C= -1A; V_{CE}= -5V		30		MHz

◆ **h_{FE-1} Classifications**

A	B	C
5000-12000	9000-18000	15000-30000

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