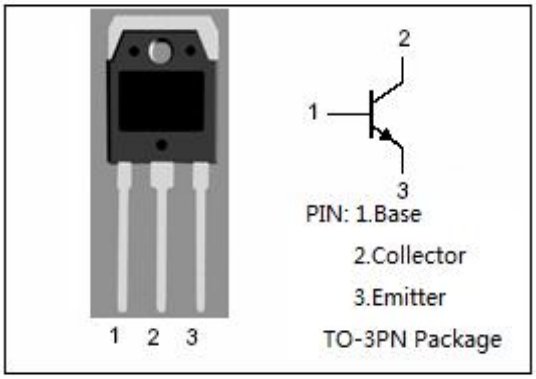
isc Silicon NPN Power Transistor — 2SD858



DESCRIPTION

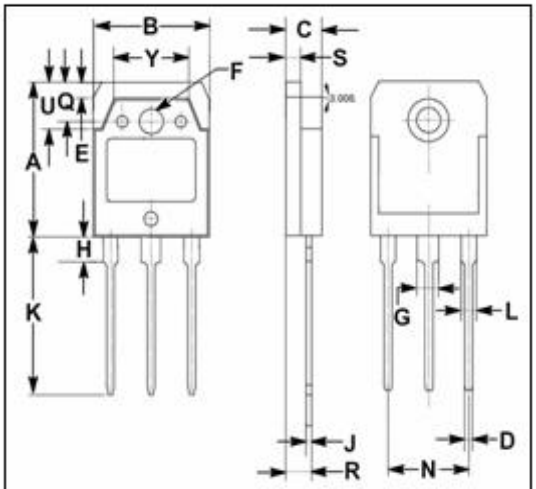
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 60V(Min)
- Good Linearity of h_{FE}
- High Collector Power Dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for AF power amplifier applications.

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	5	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	10	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	mm 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

isc Silicon NPN Power Transistor 2SD858

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 10mA; I_B= 0	60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A			1.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 3A; V_{CE}= 4V			1.6	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 30V; I_B= 0			700	μA
I_{CES}	Collector Cutoff Current	V_{CE}= 60V; V_{BE}= 0			400	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			1	mA
h_{FE-1}	DC Current Gain	I_C= 1A; V_{CE}= 4V	40		250	
h_{FE-2}	DC Current Gain	I_C= 3A; V_{CE}= 4V	20			
Switching Times						
t_{on}	Turn-On Time	I_C= 6A; I_{B1}= I_{B2}= 0.6A		0.2		μs
t_{off}	Turn-Off Time			1.4		μs

◆ **h_{FE-1} Classifications**

R	Q	P
40-90	70-150	120-250