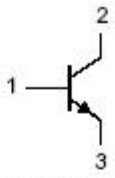
isc Silicon NPN Power Transistor — 2SC2238

DESCRIPTION

- Collector-Emitter Breakdown Voltage
  : $V_{(BR)CEO}$=160V(Min)
- Good Linearity of h_{FE}
- Complement to Type 2SA968
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

1 2 3



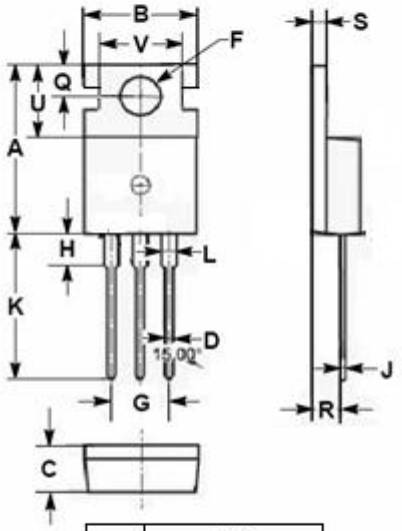
PIN 1. BASE
2.COLLECTOR
3.EMITTER
TO-220C package

APPLICATIONS

- Power amplifier applications
- Driver stage amplifier applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	160	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	1.5	A
I_E	Emitter Current- Continuous	-1.5	A
P_C	Total Power Dissipation @ T_C=25℃	25	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



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

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	160			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E=1mA ; I_C= 0	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 0.5A; I_B= 50mA			1.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C=0.5A ; V_{CE}= 5V			1.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 160V ; I_E= 0			1.0	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}=5V; I_C= 0			1.0	μA
h_{FE}	DC Current Gain	I_C=0.1A ; V_{CE}=5V	70		240	
C_{OB}	Output Capacitance	I_E= 0; V_{CB}=10V; f_{test}= 1MHz		25		pF
f_T	Current-Gain—Bandwidth Product	I_C=0.1A;V_{CE}=10V		100		MHz

◆ **h_{FE} Classifications**

O	Y
70-140	120-240

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