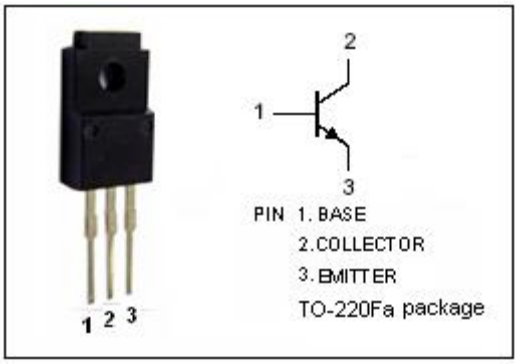
isc Silicon NPN Power Transistor — 2SC4008



DESCRIPTION

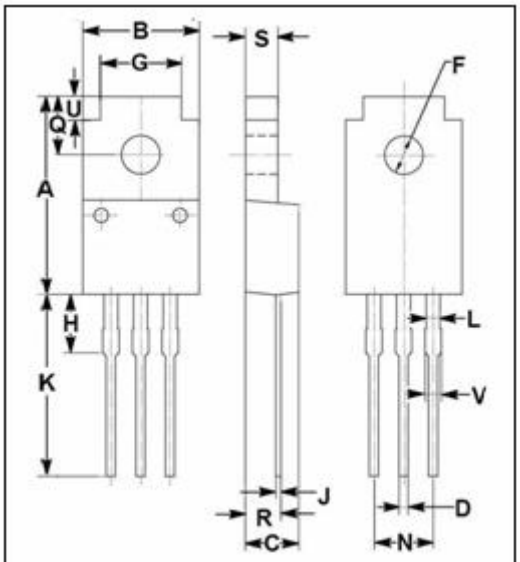
- Low Collector Saturation Voltage
  : $V_{CE(sat)}$= 1.0V(Max)@ I_C= 2A
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 80V (Min)
- Wide Area of Safe Operation
- Complement to Type 2SA1635
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio and general purpose applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	4	A
I_{CM}	Collector Current-Peak	6	A
P_C	Collector Power Dissipation @ T_C=25℃	30	W
	Collector Power Dissipation @ T_a=25℃	2	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	mm MAX
A	16.85	17.15
B	9.54	10.10
C	4.35	4.65
D	0.75	0.90
F	3.20	3.40
G	6.90	7.20
H	5.15	5.45
J	0.45	0.75
K	13.35	13.65
L	1.10	1.30
N	4.98	5.18
Q	4.85	5.15
R	2.55	3.25
S	2.70	2.90
U	1.75	2.05
V	1.30	1.50

isc Silicon NPN Power Transistor 2SC4008

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 50 μA; I_E= 0	100			V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 25mA; I_B= 0	80			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 50 μA; I_C= 0	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 0.2A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 2A; I_B= 0.2A			1.5	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	μA
h_{FE}	DC Current Gain	I_C= 1A ; V_{CE}= 4V	100		500	
f_T	Current-Gain—Bandwidth Product	I_E= -0.2A ; V_{CE}= 12V		10		MHz
C_{OB}	Output Capacitance	I_E=0 ; V_{CB}= 10V; f_{test}= 1MHz		60		pF

◆ **h_{FE} classifications**

E	F	G
100-200	160-320	250-500

NOTICE：

ISC reserves the rights to make changes of the content herein the datasheet at any time without notification. The information contained herein is presented only as a guide for the applications of our products.

ISC products are intended for usage in general electronic equipment. The products are not designed for use in equipment which require specialized quality and/or reliability, or in equipment which could have applications in hazardous environments, aerospace industry, or medical field. Please contact us if you intend our products to be used in these special applications.

ISC makes no warranty or guarantee regarding the suitability of its products for any particular purpose, nor does ISC assume any liability arising from the application or use of any products, and specifically disclaims any and all liability, including without limitation special, consequential or incidental damages.