

isc Silicon NPN Power Transistor

2SC4007

DESCRIPTION

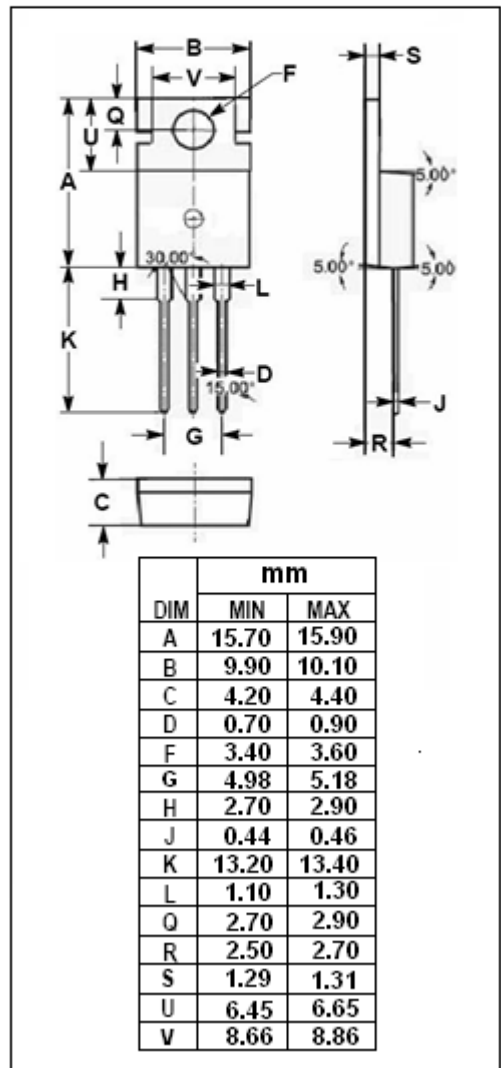
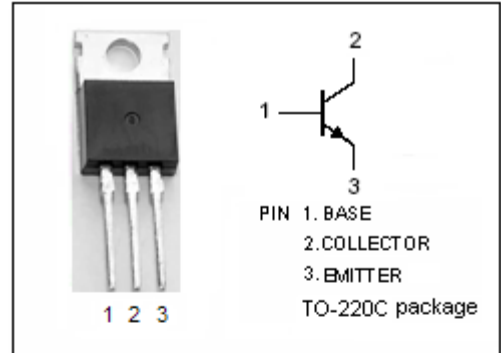
- Low Collector Saturation Voltage
: $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 2A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 80V (\text{Min})$
- Wide Area of Safe Operation
- Complement to Type 2SA1634

APPLICATIONS

- Designed for audio and general purpose applications

ABSOLUTE MAXIMUM RATINGS($T_a=25^\circ\text{C}$)

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 @ $T_C=25^\circ\text{C}$	40	W
	Collector Power Dissipation @ $T_a=25^\circ\text{C}$	2	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



isc Silicon NPN Power Transistor**2SC4007****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 50 μ A; 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 μ A; 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	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0			10	μ A
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