

isc Silicon NPN Power Transistor

2SD2107

DESCRIPTION

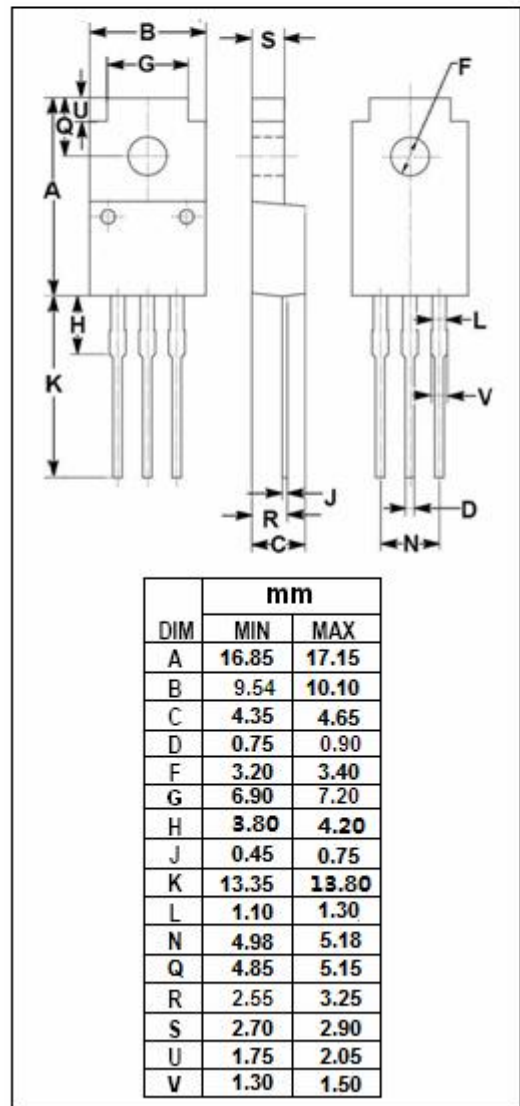
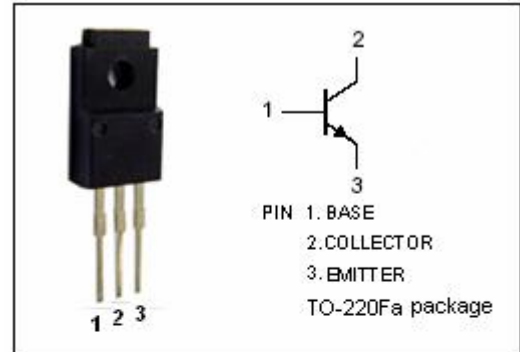
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 60V$ (Min)
- Low Collector Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for low frequency power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	4	A
I_{CM}	Collector Current-Peak	8	A
P_C	Collector Power Dissipation @ $T_C=25^\circ C$	25	W
	Collector Power Dissipation @ $T_a=25^\circ C$	2	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-55~150	$^\circ C$



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ELECTRICAL CHARACTERISTICS

T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 30mA ; R _{BE} = ∞	60			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 10 μ A; I _E = 0	70			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 10 μ A; I _C = 0	5			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			1.2	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 1A ; V _{CE} = 4V			1.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 60V; I _E = 0			10	μ A
I _{CEO}	Collector Cutoff Current	V _{CE} = 60V; R _{BE} = ∞			10	μ A
h _{FE-1}	DC Current Gain	I _C = 1A ; V _{CE} = 4V	60		200	
h _{FE-2}	DC Current Gain	I _C = 0.1A ; V _{CE} = 4V	35			

◆ h_{FE-1} classifications

B	C
60-120	100-200

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