

isc Silicon NPN Power Transistor

2SD2107

DESCRIPTION

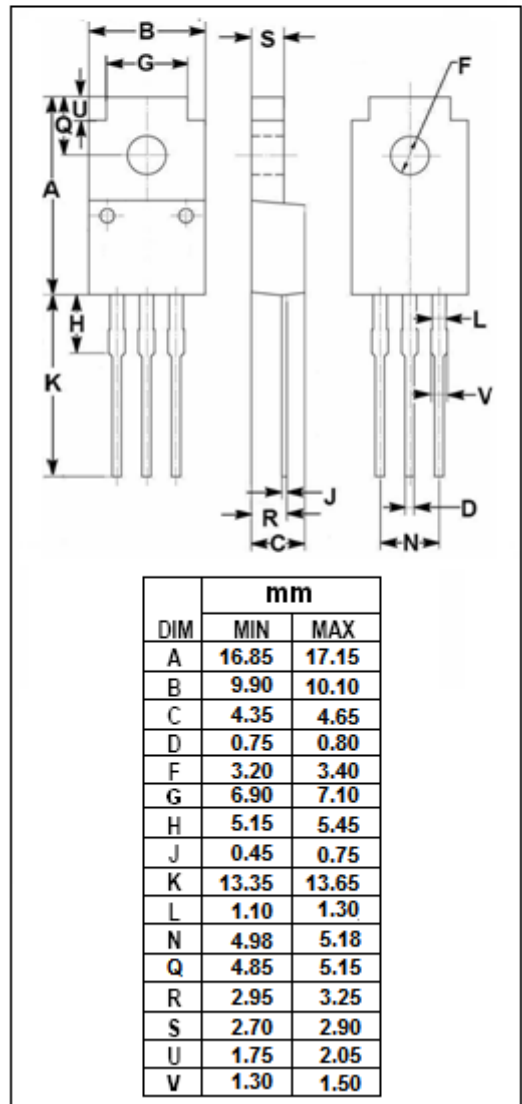
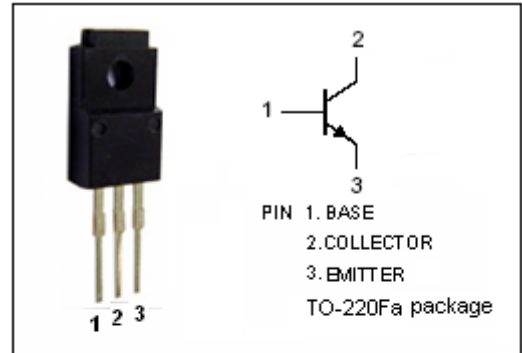
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 60V$  (Min)
- Low Collector Saturation Voltage

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

 $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=50\text{mA}$ ; $R_{BE}=\infty$	60			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	$I_C=10\mu\text{A}$ ; $I_E=0$	70			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\mu\text{A}$ ; $I_C=0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}$ ; $I_B=0.2\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=2\text{A}$ ; $I_B=0.2\text{A}$			1.2	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C=1\text{A}$ ; $V_{CE}=4\text{V}$			1.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=60\text{V}$ ; $I_E=0$			10	$\mu\text{A}$
$I_{CEO}$	Collector Cutoff Current	$V_{CE}=60\text{V}$ ; $R_{BE}=\infty$			10	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C=1\text{A}$ ; $V_{CE}=4\text{V}$	60		200	
$h_{FE-2}$	DC Current Gain	$I_C=0.1\text{A}$ ; $V_{CE}=4\text{V}$	35			

◆  $h_{FE-1}$  classifications

B	C
60-120	100-200