

isc Silicon NPN Power Transistor

2SD1311

DESCRIPTION

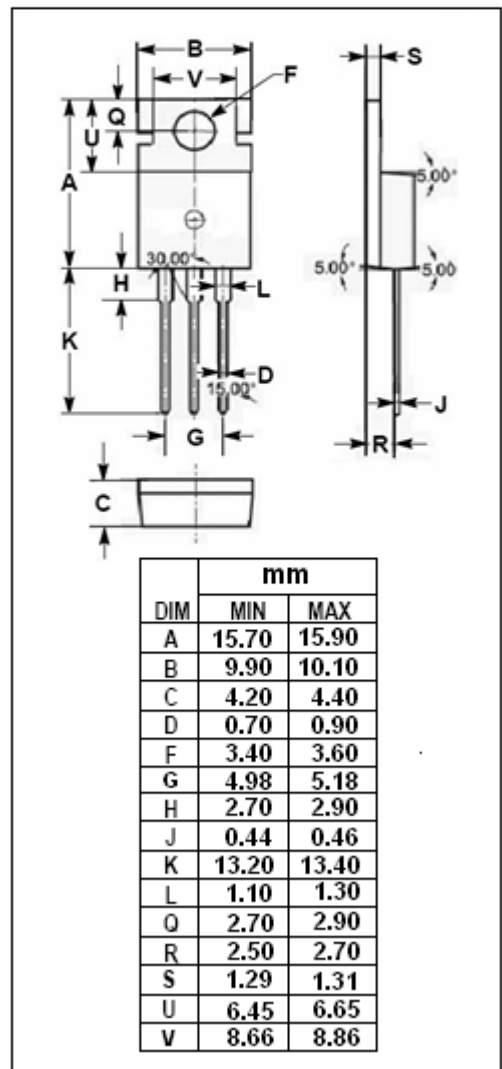
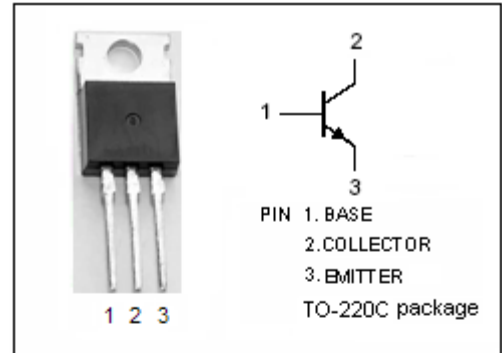
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 100V(\text{Min})$
- Low Collector Saturation Voltage-  
:  $V_{CE(sat)} = 1.5V(\text{Max.}) @ I_C = 3A$

APPLICATIONS

- Designed for audio frequency power amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	100	V
$V_{CEO}$	Collector-Emitter Voltage	100	V
$V_{EBO}$	Emitter-Base Voltage	7.0	V
$I_C$	Collector Current-Continuous	4	A
$I_{CM}$	Collector Current-Peak	6	A
$I_B$	Base Current-Continuous	0.6	A
$P_C$	Collector Power Dissipation @ $T_a=25^\circ C$	1.3	W
	Collector Power Dissipation @ $T_C=25^\circ C$	40	
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ C$



**isc Silicon NPN Power Transistor****2SD1311****ELECTRICAL CHARACTERISTICS** $T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3A; I_B=0.3A$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=3A; I_B=0.3A$			2.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=100V; I_E=0$			10	$\mu A$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=7V; I_C=0$			10	$\mu A$
$h_{FE}$	DC Current Gain	$I_C=0.5A; V_{CE}=5V$	40		200	
$f_T$	Current-Gain—Bandwidth Product	$I_C=0.1A; V_{CE}=5V$		20		MHz