

isc Silicon NPN Power Transistor
2SD1311
DESCRIPTION

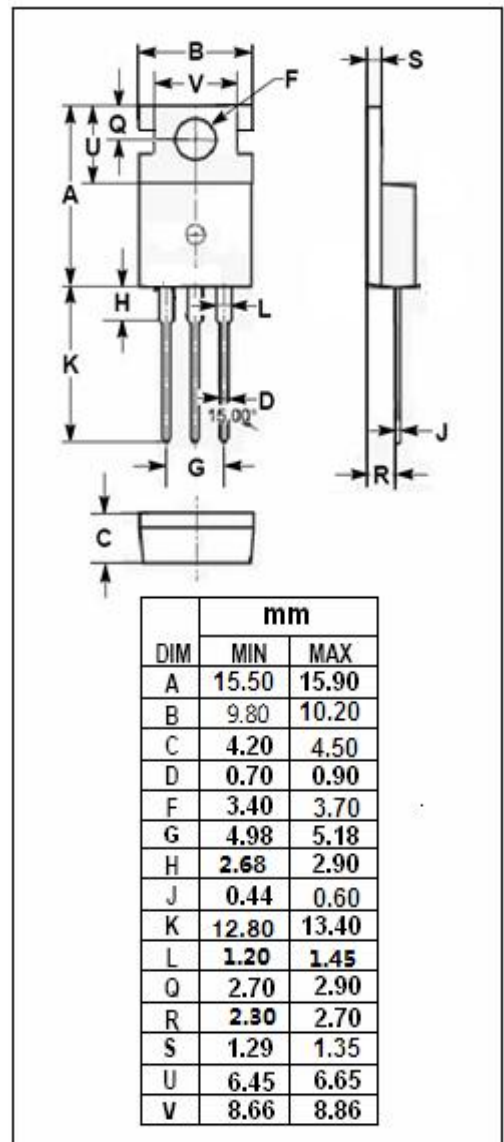
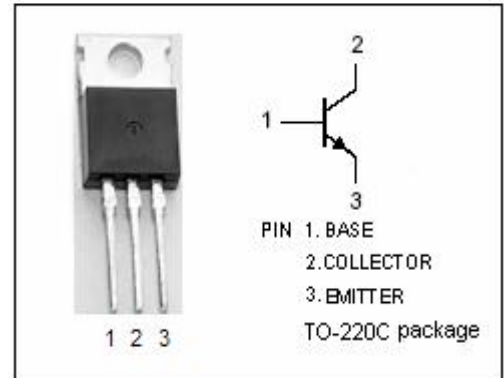
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 100V(\text{Min})$
- Low Collector Saturation Voltage-
: $V_{CE(sat)} = 1.5V(\text{Max.})@I_C = 3A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for audio frequency power amplifier 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	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 @ $T_a=25^\circ\text{C}$	1.3	W
	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	40	
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS

T_c=25°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	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V; I _C = 0			10	μ 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

NOTICE:

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