

isc Silicon NPN Power Transistor
2SC1418
DESCRIPTION

- Low Collector Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

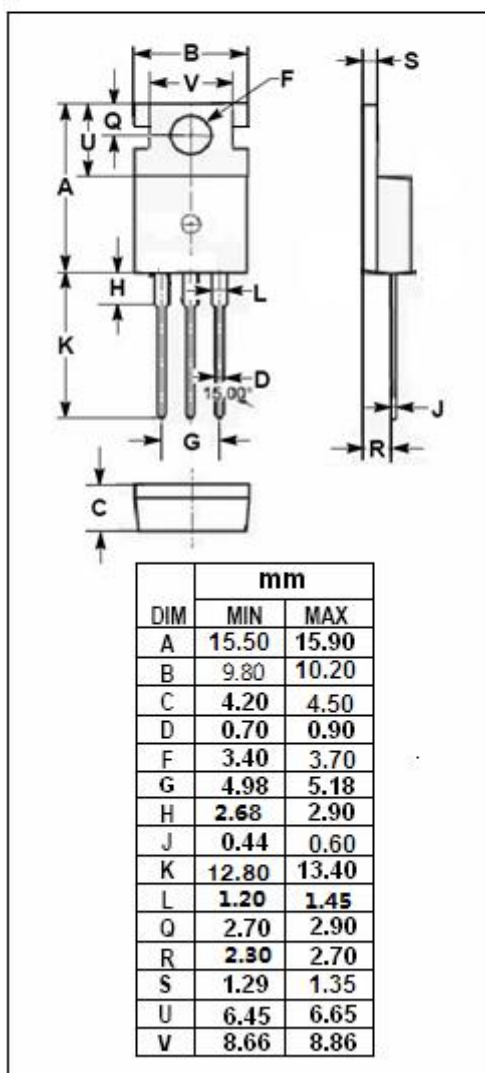
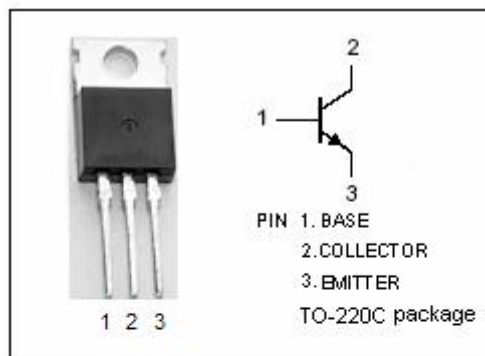
- Power amplifier applications
- Car radio, car stereo output stage amplifier applications.

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	Collector-Base Voltage	50	V
V _{CEO}	Collector-Emitter Voltage	50	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current-Continuous	2	A
P _C	Total Power Dissipation @ T _C =25°C	20	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	6.25	°C/W



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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 = 10mA ; I _B = 0	50			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = 1mA ; I _E = 0	50			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA ; I _C = 0	5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1A; I _B = 0.1A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1.0A ; I _B = 0.1A			1.5	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 50V ; I _E = 0			1.0	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5V; I _C = 0			1.0	μ A
h _{FE}	DC Current Gain	I _C = 1A ; V _{CE} = 4V	35		320	
f _T	Current-Gain—Bandwidth Product	I _C = 0.5A; V _{CE} = 10V; f _{test} = 1MHz		5		MHz

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