

isc Silicon NPN Power Transistors

2SC2501

DESCRIPTION

- With TO-220 packaging
- Reliable performance at higher powers
- Accurate reproduction of Input signal
- Greater dynamic range
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

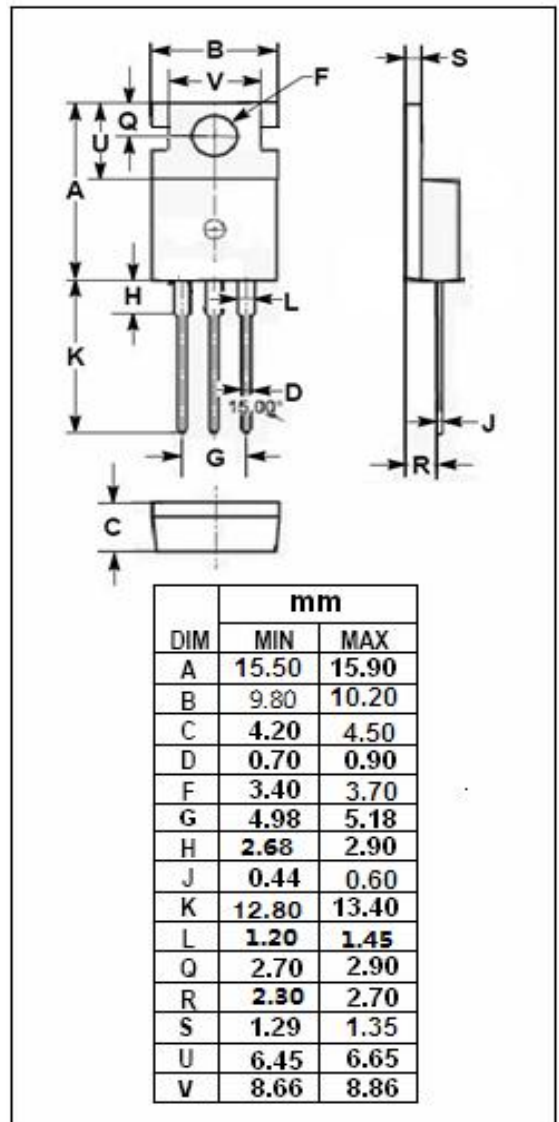
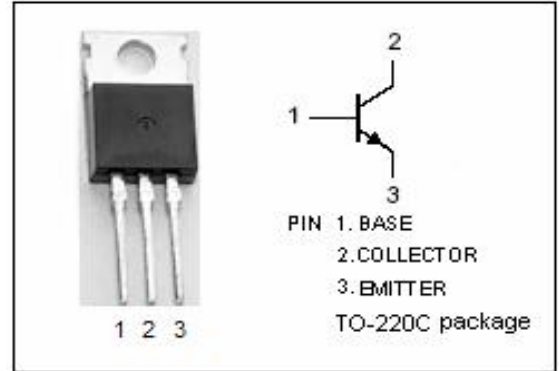
- Switching regulators
- High frequency inverters
- General purpose power amplifiers

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	Collector-Base Voltage	500	V
V _{CEO}	Collector-Emitter Voltage	400	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current-Continuous	3	A
P _T	Total Power Dissipation	40	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	3.12	°C/W



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ELECTRICAL CHARACTERISTICS

T_C=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(SUS)}	Collector-Emitter Sustaining Voltage	I _C = 10mA; I _B = 0	400			V
V _{CB0}	Collector-Base Voltage	I _C = 1mA; I _E = 0	500			V
V _{EBO}	Emitter-Base Voltage	I _E = 1mA; I _C = 0	7			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1.5A; I _B = 0.15A			0.7	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 1.5A; I _B = 0.15A			1.5	V
I _{CB0}	Collector Cutoff Current	V _{CB} = 500V			100	μA
I _{CEO}	Collector Cutoff Current	V _{CE} = 400V; I _B = 0			100	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 7V			1	mA
h _{FE-1}	DC Current Gain	I _C = 1.5A; V _{CE} = 2V	15			
h _{FE-2}	DC Current Gain	I _C = 3A; V _{CE} = 2V	8			

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