

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

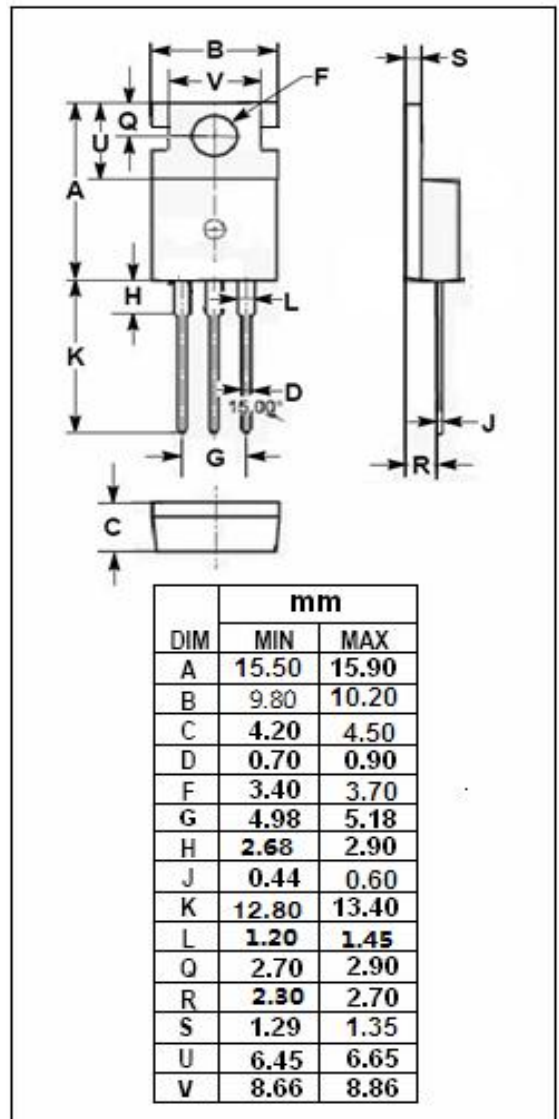
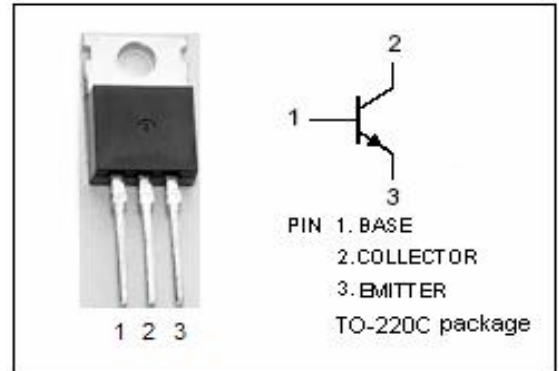
- Switching regulators
- High frequency inverters
- General purpose power amplifiers

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

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	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\text{-}j\text{-}c}$	Thermal Resistance, Junction to Case	3.12	$^{\circ}\text{C}/\text{W}$



isc Silicon NPN Power Transistors**2SC2501****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C= 10\text{mA}; I_B= 0$	400			V
V_{CBO}	Collector-Base Voltage	$I_C= 1\text{mA}; I_E= 0$	500			V
V_{EBO}	Emitter-Base Voltage	$I_E= 1\text{mA}; I_C= 0$	7			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 1.5\text{A}; I_B= 0.15\text{A}$			0.7	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 1.5\text{A}; I_B= 0.15\text{A}$			1.5	V
I_{CBO}	Collector Cutoff Current	$V_{CB}= 500\text{V}$			100	μA
I_{CEO}	Collector Cutoff Current	$V_{CE}= 400\text{V}; I_B= 0$			100	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}= 7\text{V}$			1	mA
h_{FE-1}	DC Current Gain	$I_C= 1.5\text{A}; V_{CE}= 2\text{V}$	15			
h_{FE-2}	DC Current Gain	$I_C= 3\text{A}; V_{CE}= 2\text{V}$	8			