

SPTECH Silicon NPN Power Transistor

2N6488

DESCRIPTION

- DC Current Gain Specified to 15 Amperes-
: $h_{FE} = 20-150 @ I_C = 5.0A$
= 5.0(Min) @ $I_C = 15A$
- Collector-Emitter Sustaining Voltage-
: $V_{CEQ(SUS)} = 80Vdc(Min)$
- Complement to Type 2N6491

APPLICATIONS

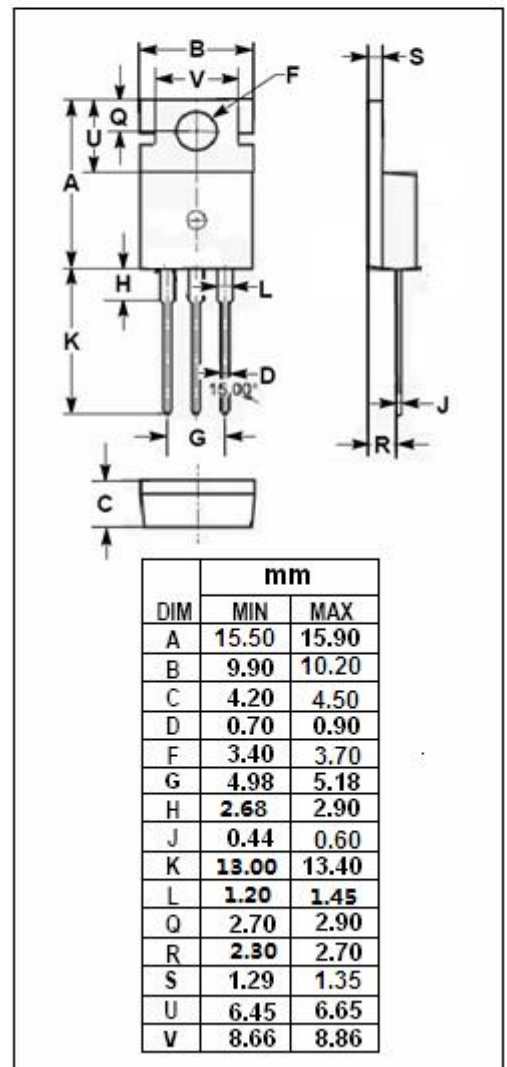
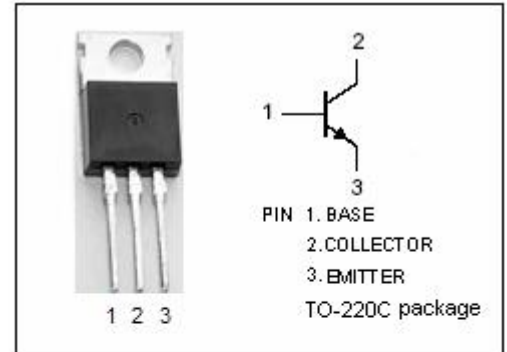
- Designed for use in general-purpose amplifier and switching applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	90	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	15	A
I_B	Base Current	5	A
P_C	Collector Power Dissipation @ $T_C = 25^\circ C$	75	W
	Collector Power Dissipation @ $T_a = 25^\circ C$	1.8	
T_J	Junction Temperature	150	$^\circ C$
T_{stg}	Storage Temperature Range	-65~150	$^\circ C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	1.67	$^\circ C/W$
$R_{th j-a}$	Thermal Resistance, Junction to Ambient	70	$^\circ C/W$



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ELECTRICAL CHARACTERISTICS

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}; I_B=0$	80		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=0.5\text{A}$		1.3	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C=15\text{A}; I_B=5.0\text{A}$		3.5	V
$V_{BE(on)-1}$	Base-Emitter On Voltage	$I_C=5\text{A}; V_{CE}=4\text{V}$		1.3	V
$V_{BE(on)-2}$	Base-Emitter On Voltage	$I_C=15\text{A}; V_{CE}=4\text{V}$		3.5	V
I_{CEO}	Collector Cutoff Current	$V_{CE}=40\text{V}; I_B=0$		1.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$		1.0	mA
h_{FE-1}	DC Current Gain	$I_C=5\text{A}; V_{CE}=4\text{V}$	20	150	
h_{FE-2}	DC Current Gain	$I_C=15\text{A}; V_{CE}=4\text{V}$	5		
f_T	Current-Gain—Bandwidth Product	$I_C=1.0\text{A}; V_{CE}=4\text{V}, f_{\text{test}}=1.0\text{MHz}$	5.0		MHz