

**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-  
:  $V_{CEO(SUS)} = 80Vdc(Min)$
- Complement to Type 2N6491

**APPLICATIONS**

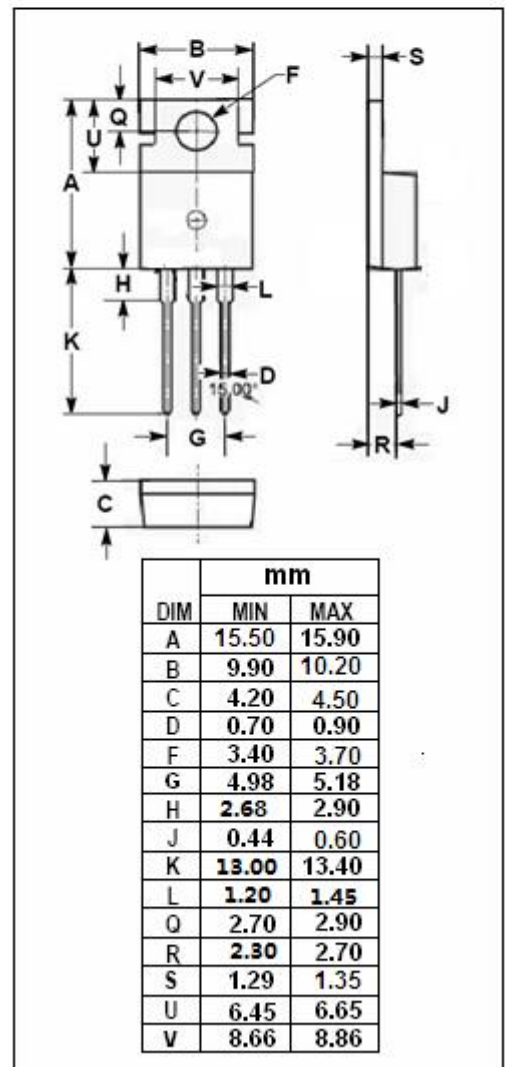
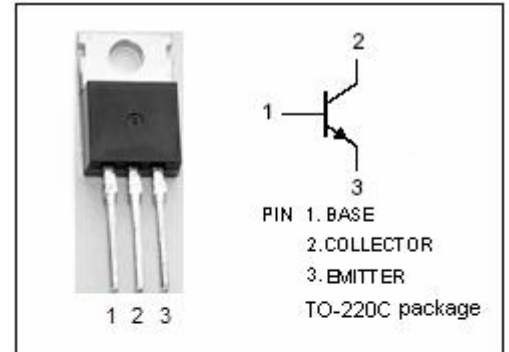
- Designed for use in general-purpose amplifier and switching applications

**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	$^\circ C/W$



**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	$I_C=1.0\text{A}; V_{CE}=4\text{V}, f_{test}=1.0\text{MHz}$	5.0		MHz