

**isc Silicon NPN Power Transistor**
**2SC2898**
**DESCRIPTION**

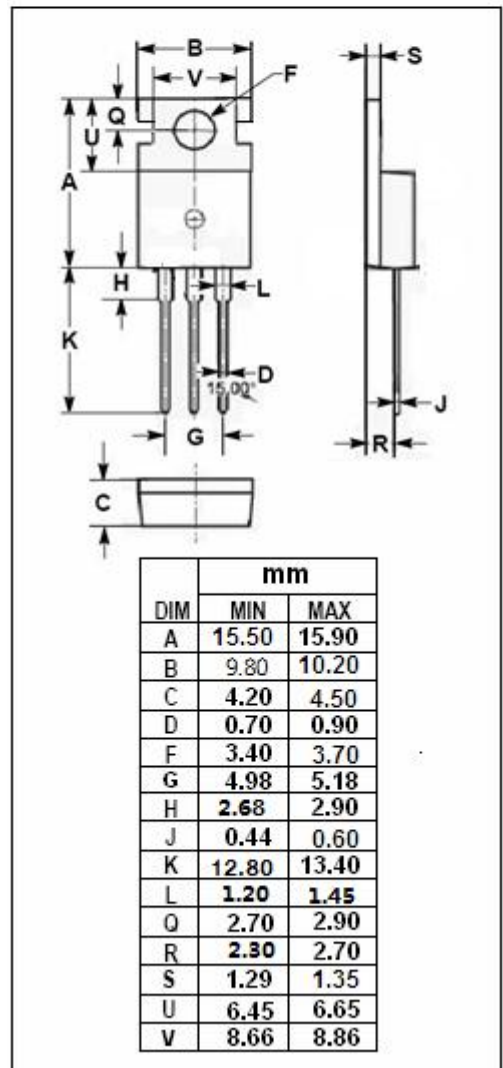
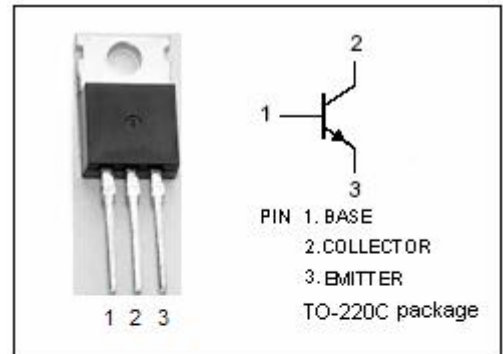
- Collector-Emitter Sustaining Voltage-  
:  $V_{CE(SUS)} = 400V(\text{Min})$
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 4A, I_B = 0.8A$
- Fast Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for high-voltage, high-speed and high power switching applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	500	V
$V_{CEO}$	Collector-Emitter Voltage	400	V
$V_{EBO}$	Emitter-Base Voltage	7	V
$I_C$	Collector Current-Continuous	8	A
$I_{CM}$	Collector Current-Peak	16	A
$I_B$	Base Current-Continuous	4	A
$P_C$	Total Power Dissipation @ $T_c = 25^\circ\text{C}$	50	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



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**ELECTRICAL CHARACTERISTICS**
**T<sub>c</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>c</sub> =30mA ; I <sub>B</sub> = 0	400		V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 10mA; I <sub>c</sub> = 0	7		V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>c</sub> = 4A; I <sub>B</sub> = 0.8A		1.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>c</sub> = 4A; I <sub>B</sub> = 0.8A		1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 400V ; I <sub>E</sub> =0		50	μ A
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 350V ; R <sub>BE</sub> =0		50	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>c</sub> = 4A ; V <sub>CE</sub> = 5V	15		
h <sub>FE-2</sub>	DC Current Gain	I <sub>c</sub> = 8A ; V <sub>CE</sub> = 5V	7		
Switching times					
t <sub>on</sub>	Turn-on Time	I <sub>c</sub> = 8A , I <sub>B1</sub> = -I <sub>B2</sub> = 1.6A, V <sub>CC</sub> ≈ 150V		0.8	μ s
t <sub>stg</sub>	Storage Time			2.0	μ s
t <sub>f</sub>	Fall Time			0.8	μ s

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