

**Silicon NPN Power Transistor**

**2SC2898**

**DESCRIPTION**

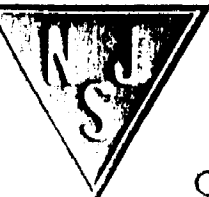
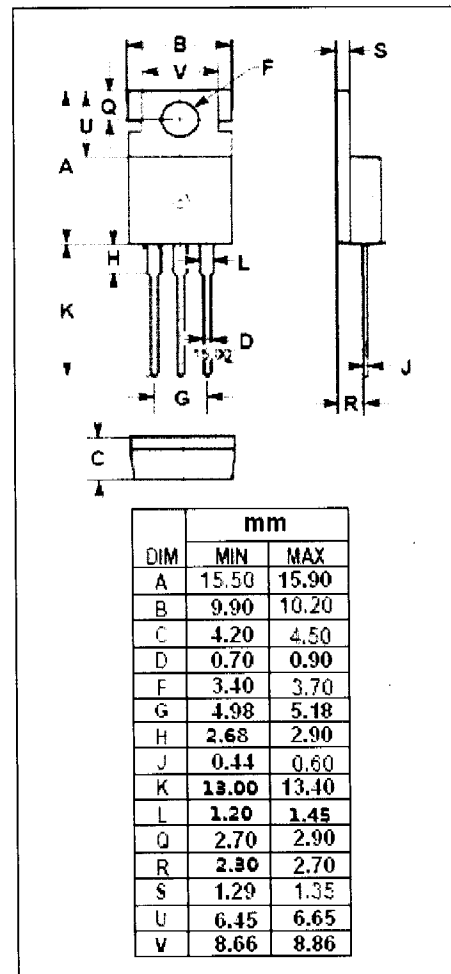
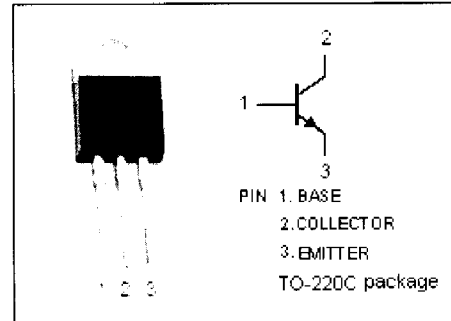
- Collector-Emitter Sustaining Voltage- :  
 :  $V_{CEO(SUS)} = 400V(\text{Min})$
- Collector-Emitter Saturation Voltage- :  
 :  $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 4A, I_B = 0.8A$
- Fast Switching Speed

**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

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=30\text{mA}; I_B=0$	400		V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\text{mA}; I_C=0$	7		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=4\text{A}; I_B=0.8\text{A}$		1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=4\text{A}; I_B=0.8\text{A}$		1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=400\text{V}; I_E=0$		50	$\mu\text{A}$
$I_{CEO}$	Collector Cutoff Current	$V_{CE}=350\text{V}; R_{BE}=0$		50	$\mu\text{A}$
$h_{FE-1}$	DC Current Gain	$I_C=4\text{A}; V_{CE}=5\text{V}$	15		
$h_{FE-2}$	DC Current Gain	$I_C=8\text{A}; V_{CE}=5\text{V}$	7		

### Switching times

$t_{on}$	Turn-on Time	$I_C=8\text{A}, I_{B1}=-I_{B2}=1.6\text{A}, V_{CC}\approx 150\text{V}$		0.8	$\mu\text{s}$
$t_{stg}$	Storage Time			2.0	$\mu\text{s}$
$t_f$	Fall Time			0.8	$\mu\text{s}$