

**2N1618**  
**HIGH POWER NPN SILICON TRANSISTOR**

**ABSOLUTE MAXIMUM RATINGS**

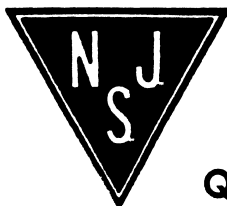
<b>VOLTAGE</b> Collector to Emitter Voltage, $V_{ce}$ Collector to Base Voltage, $V_{cb}$  Emitter to Base Voltage, $V_{eb}$	100	Volts
	80	Volts
	8	Volts
	10	Volts
<b>CURRENT</b> Collector Current, $I_c$  Base Current, $I_b$	5	Amps
	2.0	Amps
<b>POWER</b> Collector Dissipation, $T_c=25^\circ\text{C}$ , $P_c$ Collector Dissipation, $T_c=100^\circ\text{C}$ , $P_c$ Thermal Resistance, Junction to Case $\theta_{jc}$	60	Watts
	30	Watts
	2.5	$^\circ\text{C}/\text{W}$
<b>TEMPERATURE</b> Junction Temperature Range, $T_j$ (Operating and Storage)	-65 to +175 $^\circ\text{C}$ -65 to +200 $^\circ\text{C}$	

**ELECTRICAL CHARACTERISTICS**

(25 $^\circ\text{C}$  Case Temperature Except Where Otherwise Noted)

CHARACTERISTIC	SYMBOL	TEST CONDITIONS	Min.	Max.	UNITS
Breakdown Voltage, Collector to Emitter	$BV_{ceo}$	* $I_c=100\text{mA}$ , $I_b=0$	80		Volts
Collector Cutoff Current	$I_{cex}$	$V_{ce}=60\text{V}$ , $V_{be}=-1.0\text{V}$ $V_{ce}=80\text{V}$ , $V_{be}=-1.0\text{V}$ $V_{ce}=100\text{V}$ , $V_{be}=-1.0\text{V}$		1000	$\mu\text{A}$ $\mu\text{A}$ $\mu\text{A}$
Collector Cutoff Current	$I_{cbo}$	$V_{ce}=\text{Rated}$ $T_c=150^\circ\text{C}$		10	mA
Emitter Cutoff Current	$I_{ebo}$	$V_{eb}=8\text{V}$ $V_{eb}=10\text{V}$		1000	$\mu\text{A}$ $\mu\text{A}$
D.C. Current Gain	$h_{FE}$	* $I_c=2\text{A}$ , $V_{ce}=12\text{V}$ * $I_c=2\text{A}$ , $V_{ce}=4\text{V}$ * $I_c=5\text{A}$ , $V_{ce}=4\text{V}$	15	75	
Collector to Emitter Saturation Voltage	$V_{ce}(\text{sat})$	* $I_c=2\text{A}$ , $I_b=250\text{mA}$ * $I_c=2\text{A}$ , $I_b=200\text{mA}$		2.0	Volts Volts
Base to Emitter Saturation Voltage	$V_{be}(\text{sat})$	* $I_c=2\text{A}$ , $I_b=250\text{mA}$ * $I_c=2\text{A}$ , $I_b=200\text{mA}$		3.0	Volts Volts
Turn-On Time	$T_{ON}$	** $I_c=2\text{A}$ , $I_{b1}=200\text{mA}$		3.0 typ.	$\mu\text{Sec}$
Turn-Off Time	$T_{OFF}$	** $I_c=2\text{A}$ , $I_{b2}=-200\text{mA}$		6.0 typ.	$\mu\text{Sec}$

\*Pulse width  $\leq 300 \mu\text{sec}$ . Duty cycle  $\leq 2\%$ .

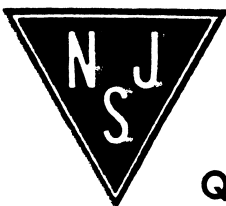
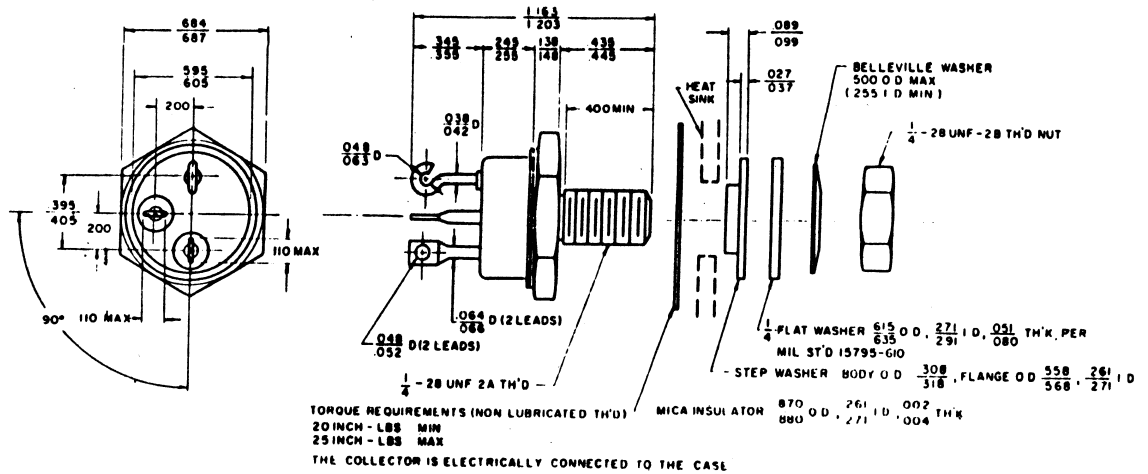


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DIMENSIONAL OUTLINE  $\frac{1}{16}$ "



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