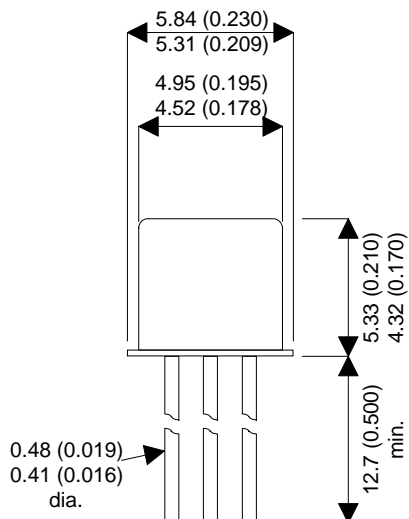
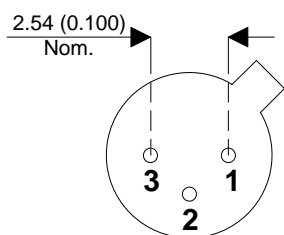


**MECHANICAL DATA**

Dimensions in mm (inches)



**HIGH VOLTAGE  
PNP SILICON  
TRANSISTOR**



**TO-18 PACKAGE**

PIN 1 – Emitter    PIN 2 – Base    PIN 3 – Collector

**ABSOLUTE MAXIMUM RATINGS** ( $T_C = 25^\circ\text{C}$  unless otherwise stated)

$V_{CBO}$	Collector – Base Voltage		200V
$V_{CEO}$	Collector – Emitter Voltage		200V
$V_{EBO}$	Emitter – Base Voltage		5V
$I_C$	Continuous Collector Current		0.5A
$P_D$	Total Device Dissipation	$T_{AMB} = 25^\circ\text{C}$	0.5W
		Derate above $25^\circ\text{C}$	2.86mW/ $^\circ\text{C}$
$P_D$	Total Device Dissipation	$T_C = 25^\circ\text{C}$	2.5W
		Derate above $25^\circ\text{C}$	14.3mW/ $^\circ\text{C}$
$T_J, T_{STG}$	Operating Junction & Storage Temperature Range		-65 to $200^\circ\text{C}$
$R_{\theta JC}$	Thermal Resistance, Junction – Case		70 $^\circ\text{C}/\text{W}$

**ELECTRICAL CHARACTERISTICS** ( $T_A = 25^\circ\text{C}$  unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit	
<b>OFF CHARACTERISTICS</b>						
$V_{(BR)CEO}$	Collector – Emitter Breakdown Voltage	$I_C = 10\text{mA}$ $I_B = 0$	200		V	
$V_{(BR)CBO}$	Collector – Base Breakdown Voltage	$I_C = 100\mu\text{A}$ $I_E = 0$	200			
$V_{(BR)EBO}$	Emitter – Base Breakdown Voltage	$I_E = 100\mu\text{A}$ $I_C = 0$	6			
$I_{CBO}$	Collector Cut-off Current	$V_{CB} = 150\text{V}$ $I_E = 0$		50	nA	
$I_{CEO}$	Collector Cut-off Current	$V_{CE} = 150\text{V}$ $I_B = 0$		500		
$I_{EBO}$	Emitter Cut-off Current	$V_{BE} = 5\text{V}$ $I_C = 0$		50		
<b>ON CHARACTERISTICS</b>						
$h_{FE}$	DC Current Gain	$V_{CE} = 1\text{V}$ $I_C = 0.1\text{mA}$	20		—	
		$V_{CE} = 10\text{V}$ $I_C = 1\text{mA}$	30			
		$V_{CE} = 10\text{V}$ $I_C = 10\text{mA}$	35			
		$V_{CE} = 10\text{V}$ $I_C = 30\text{mA}$	35	150		
$V_{CE(sat)}$	Collector – Emitter Saturation Voltage	$I_C = 10\text{mA}$ $I_B = 1\text{mA}$		0.3	V	
		$I_C = 30\text{mA}$ $I_B = 3\text{mA}$		1.3		
$V_{BE(sat)}$	Base – Emitter Saturation Voltage	$I_C = 10\text{mA}$ $I_B = 1\text{mA}$		0.8	V	
		$I_C = 30\text{mA}$ $I_B = 3\text{mA}$		0.9		
<b>DYNAMIC CHARACTERISTICS</b>						
$f_t$	Current Gain Bandwidth Product	$I_C = 20\text{mA}$ $V_{CE} = 20\text{V}$ $f = 20\text{MHz}$	50	110	200	MHz
$C_{ob}$	Output Capacitance	$I_E = 0$ $V_{CB} = 20\text{V}$ $f = 1\text{MHz}$		3.5		pF
$C_{ib}$	Input Capacitance	$I_C = 0$ $V_{EB} = 0.5\text{V}$ $f = 1\text{MHz}$		45		
$t_{on}$	Turn-On Time	$I_{B1} = 10\text{mA}$ $I_C = 50\text{mA}$ $V_{CC} = 100\text{V}$		100		ns
$t_{off}$	Turn-Off Time	$I_{B2} = 10\text{mA}$ $I_C = 50\text{mA}$ $V_{CC} = 100\text{V}$		400		

\* Pulse Test:  $t_p = 300\mu\text{s}$ ,  $\delta \leq 1\%$ .