

## SILICON NPN TRANSISTOR

### Devices

**2N6232**

**10 AMP  
100 V**

- FAST SWITCHING
- LOW SATURATION VOLTAGE

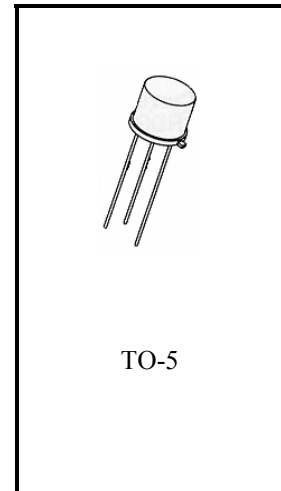
### MAXIMUM RATINGS

Ratings	Symbol	Value	Units
Collector-Emitter Voltage	$V_{CEO}$	100	Vdc
Collector-Base Voltage	$V_{CBO}$	140	Vdc
Emitter-Base Voltage	$V_{EBO}$	7.0	Vdc
Collector Current – Peak <sup>(1)</sup>	$I_C$	10	Adc
Base Current – Continuous	$I_B$		Adc
Total Power Dissipation @ $T_C = 25^{\circ}C$	$P_D$	1.25	W W/ $^{\circ}C$
Operating & Storage Junction Temperature Range	$T_J, T_{stg}$	-65 to +200	$^{\circ}C$

### THERMAL CHARACTERISTICS

Characteristics	Symbol	Max.	Unit
Thermal Resistance, Junction-to-Case	$R_{\theta JC}$	6.67	$^{\circ}C/W$

(1) Pulse Test: Pulse Width = Duty Cycle < %



### ELECTRICAL CHARACTERISTICS ( $T_C = 25^{\circ}C$ unless otherwise noted)

Characteristics	Symbol	Min.	Max.	Unit
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### OFF CHARACTERISTICS

Collector-Emitter Sustaining Voltage <sup>(2)</sup> $I_C = 100 \text{ mAdc}, I_B = 0$	$V_{CEO(sus)}$	100		Vdc
Collector-Emitter Cutoff Current $V_{CE} = 140 \text{ Vdc}, R_{be} = 0$	$I_{CES}$		0.2	uAdc
Collector Cutoff Current $V_{CE} = 100 \text{ Vdc}, R_{BE} = 0 \Omega, T_C = 150^{\circ}C$	$I_{CES}$		0.1	mAdc
Emitter-Base Cutoff Current $V_{EB} = 7.0 \text{ Vdc}, I_C = 0$	$I_{EBO}$		10	uAdc

**ELECTRICAL CHARACTERISTICS (con't)**

Characteristics	Symbol	Min.	Max.	Unit
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**ON CHARACTERISTICS <sup>(2)</sup>**

DC Current Gain $I_C = 5.0 \text{ Adc}, V_{CE} = 2.0 \text{ Vdc}$	$h_{FE}$	25	100	
Collector-Emitter Saturation Voltage $I_C = 5 \text{ Adc}, I_B = .5 \text{ Adc}$	$V_{CE(sat)}$		0.7	Vdc
Base-Emitter Saturation Voltage $I_C = 10 \text{ Adc}, I_B = 1.0 \text{ Adc}$	$V_{BE(ON)}$		1.8	Vdc

**DYNAMIC CHARACTERISTICS**

Output Capacitance $V_{CB} = 10 \text{ Vdc}, I_E = 0, f = 1.0 \text{ MHz}$	$C_{obo}$		150	pF
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**SWITCHING CHARACTERISTICS**

	$I_C = 5.0 \text{ Adc}, I_{B1} = I_{B2} = 0.5 \text{ A}$ Duty Cycle – 2.0%	$t_{on}$		250	ns
		$t_{off}$		1200	ns

(2) Pulse Test: Pulse Width = 300 $\mu$ s, Duty Cycle  $\leq$  2.0%.