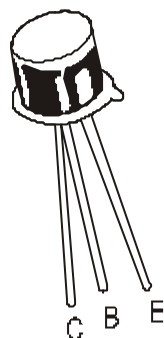


PNP SILICON TRANSISTOR

2N3964



TO-18

Metal Can Package

For General Purpose Application

ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ \text{C}$ unless noted otherwise)

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V_{CBO}	45	V
Collector Emitter Voltage	V_{CEO}	45	V
Emitter Base Voltage	V_{EBO}	6	V
Collector Current Continuous	I_C	200	mA
Total Device Dissipation @ $T_A=25^\circ\text{C}$	P_D	360	mW
Total Device Dissipation @ $T_C=25^\circ\text{C}$	P_D	1.2	W
Operating and Storage Junction Temperature Range	T_j, T_{stg}	-65 to +200	$^\circ\text{C}$

THERMAL CHARACTERISTICS

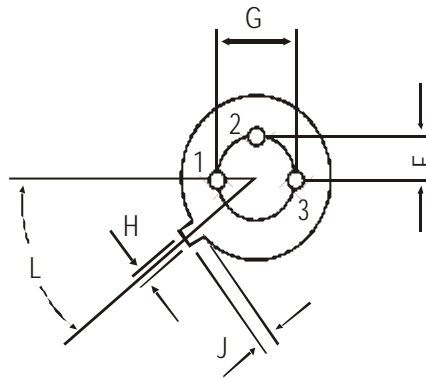
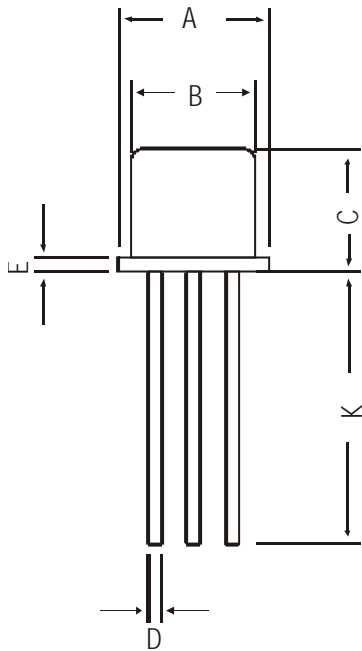
DESCRIPTION	SYMBOL	MIN	TYP	MAX	UNIT
Thermal Resistance, Junction to Case	R_{thJ-C}			146	$^\circ\text{C/W}$
Thermal Resistance, Junction to Ambient	R_{thJ-A}			486	$^\circ\text{C/W}$

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

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	V_{CBO}	$I_C=100\mu\text{A}, I_E=0$	45			V
Collector Emitter Breakdown Voltage	V_{CEO}	$I_C=1\text{mA}, I_B=0$	45			V
Emitter Base Breakdown Voltage	V_{EBO}	$I_E=100\mu\text{A}, I_C=0$	6			V
Collector Cut-off Current	I_{CBO}	$V_{CB} = 40\text{V}, I_E=0$			50	nA
Emitter Cut-off Current	I_{EBO}	$V_{BE}=4\text{V}, I_C=0$			50	nA
DC Current Gain	* h_{FE}	$V_{CE}= 5\text{V}, I_C = 0.1\text{mA}$	250			
		$V_{CE}= 5\text{V}, I_C = 1\text{mA}$	250		600	
		$V_{CE}= 5\text{V}, I_C = 10\text{mA}$	200			
		$V_{CE}= 5\text{V}, I_C = 50\text{mA}$	180			
Collector Emitter Saturation Voltage	* $V_{CE(sat)}$	$I_C=10\text{mA}, I_B=0.5\text{mA}$			0.25	V
		$I_C=50\text{mA}, I_B=5\text{mA}$			0.40	V
Base Emitter Saturation Voltage	* $V_{BE(sat)}$	$I_C=10\text{mA}, I_B=0.5\text{mA}$			0.90	V
		$I_C=50\text{mA}, I_B=5\text{mA}$			0.95	V
Current Gain Bandwidth Product	f_T	$I_C=0.5\text{mA}, V_{CE}=5\text{V}, f=20\text{MHz}$	50			MHz

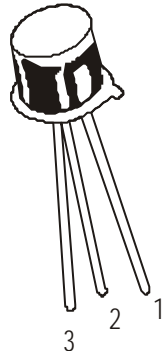
* Pulse Test : $t_p \leq 300\mu\text{s}, \delta \leq 2\%$

TO-18 PACKAGE OUTLINE AND DIMENSION



All dimensions in mm.

DIM	MIN	MAX
A	5.24	5.84
B	4.52	4.97
C	4.31	5.33
D	0.40	0.53
E	—	0.76
F	—	1.27
G	—	2.97
H	0.91	1.17
J	0.71	1.21
K	12.70	—
L	45 DEG	



PIN CONFIGURATION

1. EMITTER
2. BASE
3. COLLECTOR

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-18	1K/polybag	350 gm/1K pcs	3" x 7.5" x 7.5"	5K	17" x 15" x 13.5"	80K	34 kgs



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Notes

Disclaimer

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