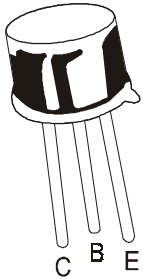


**PNP SILICON HIGH VOLTAGE TRANSISTOR**

**2N 5415, 16**



**TO-39  
Metal Can Package**

**High Speed Switching and Linear amplifier Appliances in Military, Industrial and Commercial Equipment.**

**ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless specified otherwise)**

DESCRIPTION	SYMBOL	2N5415	2N5416	UNITS
Collector Emitter Voltage	$V_{CEO}$	200	300	V
Collector Base Voltage	$V_{CBO}$	200	350	V
Emitter Base Voltage	$V_{EBO}$	4	6	V
Collector Current Continuous	$I_C$	(-----1-----)		A
Base Current Continuous	$I_B$	(-----0.5-----)		A
Power Dissipation @ Ta=50°C	$P_D$	(-----1-----)		W
Derate Above 25°C				mW/°C
Power Dissipation@ Tc=25°C	$P_D$	(-----10-----)		W
Derate Above 25°C				
Junction Temperature	$T_j$	(-----200-----)		mW/°C
Operating And Storage Junction Temperature Range	$T_{stg}$		-65 to +200	°C

**THERMAL RESISTANCE**

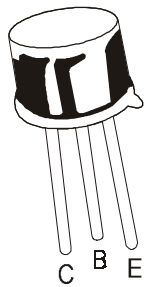
Junction to Ambient	$R_{th(j-a)}$		150	°C/W
Junction to Case	$R_{th(j-c)}$		17.5	°C/W

**ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)**

DESCRIPTION	SYMBOL	TEST CONDITION	2N5415	2N5416	UNITS
Collector Emitter Breakdown Voltage	$BV_{CEO(sus)}^*$	$I_C=50mA, I_B=0$	>200	>300	V
Collector Cut off Current	$I_{CBO}$	$V_{CB}=175V, I_E=0$	<50		µA
		$V_{CB}=280V, I_E=0$		<50	µA
Collector Cutoff Current	$I_{CEO}$	$V_{CE}=150V, I_B=0$	<50		µA
		$V_{CE}=250V, I_B=0$		<50	µA
Emitter Cut off Current	$I_{EBO}$	$V_{EB}=4V, I_C=0$	<20		µA
		$V_{EB}=6V, I_C=0$		<20	µA
Collector Emitter Saturation Voltage	$V_{CE(Sat)}$	$I_C=50mA, I_B=5mA$	<2.5	<2	V
Base Emitter Saturation Voltage	$V_{BE(Sat)}$	$I_C=50mA, I_B=5mA$	<1.5	<1.5	V
DC Current Gain	$h_{FE}^*$	$I_C=50mA, V_{CE}=10V$	30-150	30-120	

# PNP SILICON HIGH VOLTAGE TRANSISTOR

2N 5415, 16



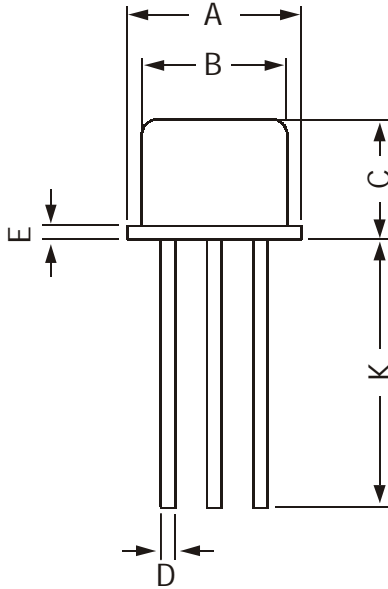
TO-39  
Metal Can Package

## ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	2N5415/16	UNITS
<b><u>DYNAMIC CHARACTERISTICS</u></b>				
Small Signal Current Gain	$ h_{fe} $	$I_C=5\text{mA}$ , $V_{CE}=10\text{V}$ , $f=1\text{kHz}$	>25	
Transition Frequency	$f_T$	$I_C=10\text{mA}$ , $V_{CE}=10\text{V}$ $f=5\text{MHz}$	>15	MHz
Output Capacitance	$C_{ob}$	$V_{CB}=10\text{V}$ , $I_E=0$ , $f=1\text{MHz}$	<15	pF
Input Capacitance	$C_{ib}$	$V_{EB}=V_{EBO\text{max}}$ , $I_C=0$ , $f=1\text{MHz}$	<75	pF

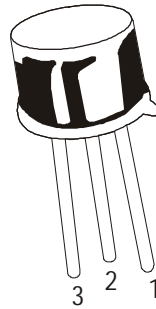
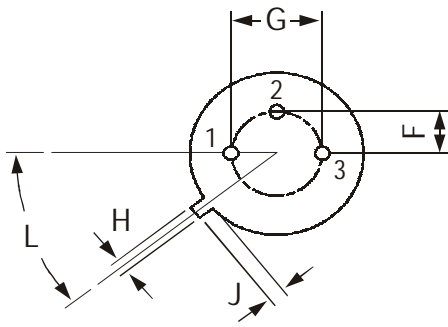
\*Pulse Test: Pulse Width <300 $\mu$ s, Duty Cycle <2%

TO-39 Metal Can Package



All dimensions are in mm

DIM	MIN	MAX
A	8.50	9.39
B	7.74	8.50
C	6.09	6.60
D	0.40	0.53
E	—	0.88
F	2.41	2.66
G	4.82	5.33
H	0.71	0.86
J	0.73	1.02
K	12.70	—
L	42 DEG	48 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-39	500 pcs/polybag	540 gm/500 pcs	3" x 7.5" x 7.5"	20K	17" x 15" x 13.5"	32K	40 kgs

### **Disclaimer**

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