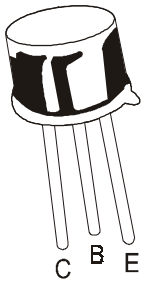
PNP SILICON HIGH VOLTAGE TRANSISTOR

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=25ºC unless specified otherwise)

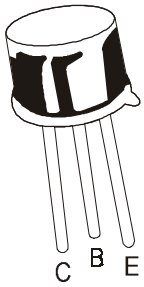
DESCRIPTION	SYMBOL	2N5415	2N5416	UNITS
Collector Emitter Voltage	V_{CEO}	200	300	V
Collector Base Voltage	V_{CBO}	200	350	V
Emitter Base Voltage	V_{EBO}	4	6	V
Collector Current Continuous	I_C	(----------1----------)		A
Base Current Continuous	I_B	(----------0.5----------)		A
Power Dissipation @ Ta=50ºC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

THERMAL RESISTANCE

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

ELECTRICAL CHARACTERISTICS (Ta=25ºC 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	



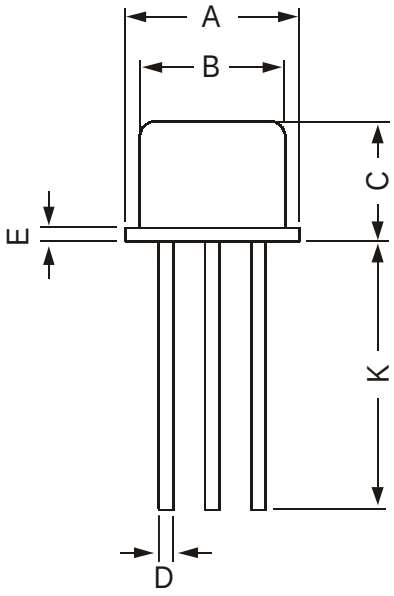
TO-39
Metal Can Package

ELECTRICAL CHARACTERISTICS (Ta=25ºC unless specified otherwise)

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

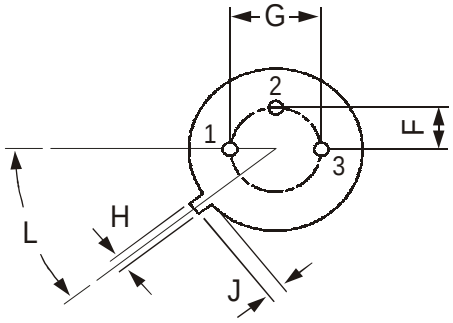
***Pulse Test: Pulse Width <300µs, Duty Cycle <2%**

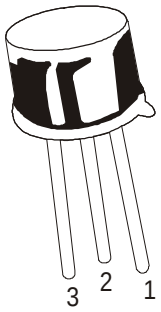
TO-39 Metal Can Package



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

TO-39
Metal Can Package

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Discrete Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.

CDIL is a registered Trademark of
Continental Device India Limited
C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 5141 1112 Fax + 91-11-2579 5290, 5141 1119
email@cdil.com www.cdilsemi.com

2N5415, 16Rev300701