

PNP 2N5415 – 2N5416

HIGH VOLTAGE TRANSISTORS

The 2N5415 and 2N5416 are PNP transistors mounted in TO-39 metal case .
They are intended for use in high-voltage switching and linear amplifier applications.
Compliance to RoHS

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CEO}	Collector-Emitter Voltage ($I_b = 0$)	2N5415	-200	V
		2N5416	-300	
V_{CBO}	Collector-Base Voltage ($I_e = 0$)	2N5415	-200	V
		2N5416	-350	
V_{EBO}	Emitter-Base Voltage ($I_c = 0$)	2N5415	-4	V
		2N5416	-6	
I_C	Collector Current	2N5415	-200	mA
		2N5416		
I_{CM}	Peak Collector Current	2N5415	-400	mA
		2N5416		
I_{BM}	Peak Base Current	2N5415	-200	mA
		2N5416		
P_D	Total Power Dissipation	$T_{amb} = 50^{\circ}C$	2N5415	1
			2N5416	
		$T_{case} = 25^{\circ}C$	2N5415	10
			2N5416	
T_J	Junction Temperature	2N5415	200	$^{\circ}C$
		2N5416		
T_{Stg}	Storage Temperature Range	2N5415	-65 to +200	$^{\circ}C$
		2N5416		
T_{amb}	Operating Ambient Temperature	2N5415	-65 to +150	$^{\circ}C$
		2N5416		

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJ-a}	Thermal Resistance, Junction to ambient	150	$^{\circ}C/W$
R_{thJ-c}	Thermal Resistance, Junction to case	17.5	$^{\circ}C/W$

PNP 2N5415 – 2N5416

ELECTRICAL CHARACTERISTICS

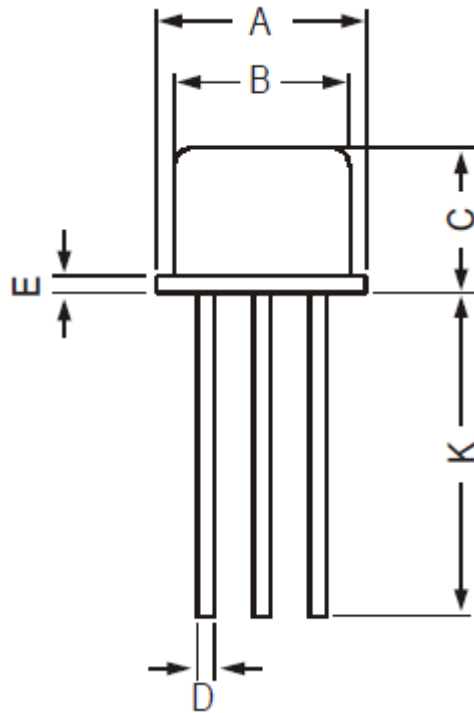
TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit	
I_{CBO}	Collector Cutoff Current	$V_{CB} = -175\text{ V}, I_E = 0$	2N5415	-	-	-50	μA
		$V_{CB} = -280\text{ V}, I_E = 0$	2N5416	-	-	-	-
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -4\text{ V}, I_C = 0$	2N5415	-	-	-20	μA
		$V_{EB} = -6\text{ V}, I_C = 0$	2N5416	-	-	-	-
V_{CEO}	Collector Emitter Breakdown Voltage (*)	$I_C = -10\text{ mA}, I_B = 0$	2N5415	-200	-	-	V
			2N5416	-300	-	-	
h_{FE}	DC Current Gain (*)	$I_C = -50\text{ mA}$ $V_{CE} = -10\text{ V}$	2N5415	30	-	150	-
			2N5416	30	-	120	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	$I_C = -50\text{ mA}$ $I_B = -5\text{ mA}$	2N5415	-	-	-2.5	V
			2N5416	-	-	-	
V_{BE}	Base-Emitter Voltage (*)	$I_C = -50\text{ mA}$ $V_{CE} = -10\text{ V}$	2N5415	-	-	-1.5	V
			2N5416	-	-	-	
f_T	Transition frequency	$I_C = -10\text{ mA}$ $V_{CE} = -10\text{ V}, f = 5\text{ MHz}$	2N5415	15	-	-	MHz
			2N5416				
C_c	Collector Capacitance	$I_E = i_e = 0, V_{CB} = -10\text{ V}$ $f = 1\text{ MHz}$	2N5415	-	-	15	μF
			2N5416				
C_e	Emitter Capacitance	$I_C = i_c = 0, V_{EB} = -6\text{ V}$ $f = 1\text{ MHz}$	2N5415	-	-	75	μF
			2N5416				

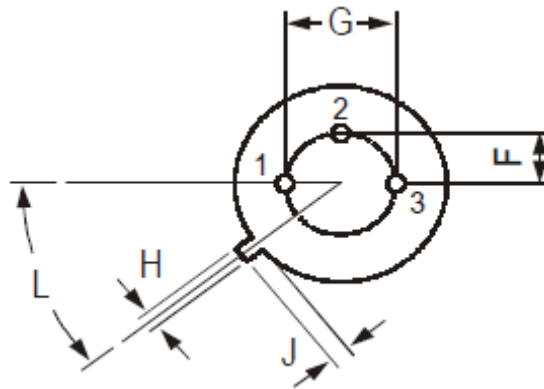
(*) Pulse conditions : $t_p < 300\ \mu\text{s}, \delta = 1.5\%$

PNP 2N5415 – 2N5416 MECHANICAL DATA CASE TO-39

DIMENSIONS (mm)		
	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°	48°



Pin 1 :	Emitter
Pin 2 :	Base
Pin 3 :	Collector
Case :	Collector



Revised August 2012

Information furnished is believed to be accurate and reliable. However, Comset Semiconductors assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. Data are subject to change without notice. Comset Semiconductors makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Comset Semiconductors assume any liability arising out of the application or use of any product and specifically disclaims any and all liability, including without limitation consequential or incidental damages. Comset Semiconductors' products are not authorized for use as critical components in life support devices or systems.