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℃	2N5415	1	W
			2N5416		
		T_{case} = 25℃	2N5415	10	
			2N5416		
T_J	Junction Temperature		2N5415	200	℃
			2N5416		
T_{Stg}	Storage Temperature Range		2N5415	-65 to +200	℃
			2N5416		
T_{amb}	Operating Ambient Temperature		2N5415	-65 to +150	℃
			2N5416		

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thJ-a}	Thermal Resistance, Junction to ambient	150	℃/W
R_{thJ-c}	Thermal Resistance, Junction to case	17.5	℃/W

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ELECTRICAL CHARACTERISTICS

TC=25℃ unless otherwise noted

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

(*) Pulse conditions : tp < 300 µs, δ =1.5%

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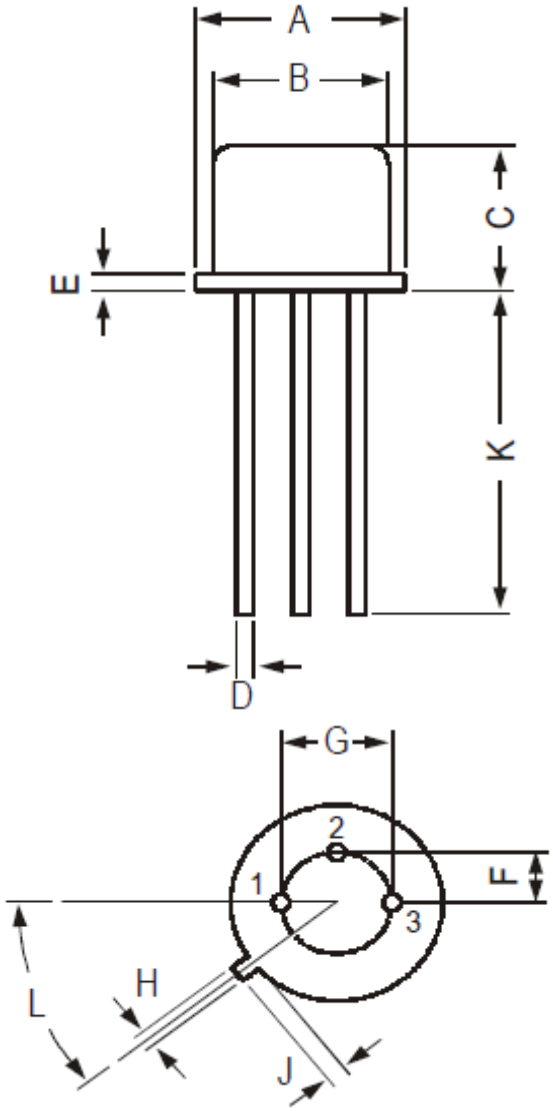
MECHANICAL DATA CASE TO-39

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

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