

## PNP 2N5322 – 2N5323

### SILICON PLANAR EPITAXIAL TRANSISTORS

The 2N5322 and 2N5323 are PNP transistors mounted in TO-39 metal case .  
They are especially intended for high-voltage medium power applications in industrial and commercial equipments.  
Compliance to RoHS

#### ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit	
$V_{CEO}$	Collector-Emitter Voltage ( $I_B = 0$ )	2N5322	-75	V	
		2N5323	-50		
$V_{CBO}$	Collector-Base Voltage ( $I_E = 0$ )	2N5322	-100	V	
		2N5323	-75		
$V_{CEV}$	Collector-Emitter Voltage ( $V_{BE} = 1.5V$ )	2N5322	-100	V	
		2N5323	-75		
$V_{EBO}$	Emitter-Base Voltage ( $I_C = 0$ )	2N5322	-6	V	
		2N5323	-5		
$I_C$	Collector Current	2N5322	-2	A	
		2N5323			
$I_B$	Base Current	2N5322	-1	A	
		2N5323			
$P_D$	Total Power Dissipation	@ $T_{amb} = 25^\circ$	2N5322	1	W
			2N5323		
		@ $T_{case} = 25^\circ$	2N5322	10	
			2N5323		
$T_J$	Junction Temperature	2N5322	-65 to +200	$^\circ C$	
		2N5323			
$T_{Stg}$	Storage Temperature range	2N5322	-65 to +200	$^\circ C$	
		2N5323			

#### THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
$R_{thJ-a}$	Thermal Resistance, Junction to ambient	175	$^\circ C/W$
$R_{thJ-c}$	Thermal Resistance, Junction to case	17.5	$^\circ C/W$

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### ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit	
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -80\text{ V}, I_E = 0$	2N5322	-	-	-0.5	$\mu\text{A}$
		$V_{CB} = -60\text{ V}, I_E = 0$	2N5323	-	-	-5	
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -5\text{ V}, I_C = 0$	2N5322	-	-0.1	-	$\mu\text{A}$
		$V_{EB} = -4\text{ V}, I_C = 0$	2N5323	-	-0.5	-	
$V_{CEO}$	Collector Emitter Breakdown Voltage	$I_C = -10\text{ mA}, I_B = 0$	2N5322	-75	-	-	V
			2N5323	-50	-	-	
$V_{CEV}$	Collector Emitter Breakdown Voltage	$I_C = -100\text{ }\mu\text{A}$ $V_{BE} = 1.5\text{ V}$	2N5322	-100	-	-	V
			2N5323	-75	-	-	
$V_{EBO}$	Emitter Base Breakdown Voltage	$I_E = -100\text{ }\mu\text{A}$ $I_C = 0$	2N5322	-6	-	-	V
			2N5323	-5	-	-	
$h_{FE} (1)$	DC Current Gain	$I_C = -500\text{ mA}$ $V_{CE} = -4\text{ V}$	2N5322	30	-	130	-
			2N5323	40	-	250	
		$I_C = -1\text{ A}$ $V_{CE} = -2\text{ V}$	2N5322	10	-	-	
$V_{CE(SAT)} (1)$	Collector-Emitter saturation Voltage	$I_C = -500\text{ mA}$ $I_B = -50\text{ mA}$	2N5322	-	-	-0.7	V
			2N5323	-	-	-1.2	
$V_{BE} (1)$	Base-Emitter Voltage	$I_C = -500\text{ mA}$ $V_{CE} = -4\text{ V}$	2N5322	-	-	-1.1	V
			2N5323	-	-	-1.4	
$f_T$	Transition frequency	$I_C = -50\text{ mA}$ $V_{CE} = -4\text{ V}$ $f = 10\text{ MHz}$	2N5322	50	-	-	MHz
			2N5323				
$t_{on}$	Turn-on Time	$I_C = -500\text{ mA}$ $V_{CC} = -30\text{ V}$ $I_{B1} = -50\text{ mA}$	2N5322	-	-	100	ns
			2N5323				
$t_{off}$	Turn-off Time	$I_C = 500\text{ mA}$ $V_{CC} = 30\text{ V}$ $I_{B1} = -I_{B2} = -50\text{ mA}$	2N5322	-	-	1000	ns
			2N5323				

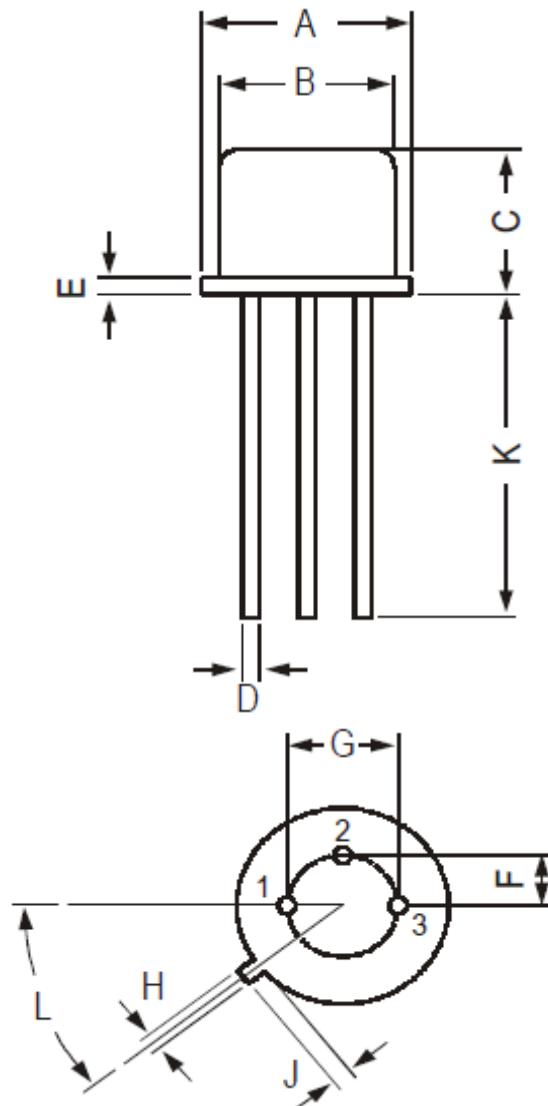
(1) Pulse conditions :  $t_p < 300\text{ }\mu\text{s}$ ,  $\delta = 1\%$

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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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