PNP 2N3636 – 2N3637

SILICON PLANAR RF TRANSISTORS

The 2N3636 and 2N3637 are PNP transistors mounted in TO-39 metal case.
They are intended for high voltage switching and Low Power Amplifier.
Compliance to RoHS

ABSOLUTE MAXIMUM RATINGS

Symbol	Ratings		Value	Unit
V_{CEO}	Collector-Emitter Voltage (I_b = 0)		-175	V
V_{CBO}	Collector-Base Voltage (I_e = 0)		-175	V
V_{EBO}	Emitter-Base Voltage (I_c = 0)		-5	V
I_C	Collector Current		-1	A
P_D	Total Power Dissipation	T_{amb} = 25°C	1	W
		T_{case} = 25°C	5	
T_J	*Junction Temperature*		200	°C
T_{Stg}	Storage Temperature Range		-65 to +200	°C
T_{amb}	Operating Ambient Temperature		-65 to +150	°C

ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
I_{CBO}	Collector Cutoff Current	V_{CB} = -100 V, I_E =0	-	-	-100	nA
I_{EBO}	Emitter Cutoff Current	V_{EB} = -3 V, I_C =0	-	-	-50	nA
V_{CEO}	Collector Emitter Breakdown Voltage (*)	I_C = -10 mA, I_B =0	-175	-	-	V
V_{CBO}	Collector Base Breakdown Voltage	I_C = -100 µA, I_E =0	-175	-	-	V
V_{EBO}	Emitter Base Breakdown Voltage	I_E = -10 mA, I_C =0	-5	-	-	V

PNP 2N3636 – 2N3637

ELECTRICAL CHARACTERISTICS

TC=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)		Min	Typ	Max	Unit
h_{FE}	DC Current Gain (*)	I_C = -0.1 mA, V_{CE} = -10 V	2N3636	40	-	-	-
			2N3637	80	-	-	
		I_C = -1 mA, V_{CE} = -10 V	2N3636	45	-	-	
			2N3637	90	-	-	
		I_C = -10 mA, V_{CE} = -10 V	2N3636	50	-	-	
			2N3637	100	-	-	
		I_C = -50 mA, V_{CE} = -10 V	2N3636	50	-	150	
			2N3637	100	-	300	
		I_C = -150 mA, V_{CE} = -10 V	2N3636	25	-	-	
			2N3637	50	-	-	
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	I_C = -10 mA, I_B = -1 mA		-	-	0.3	V
		I_C = -50 mA, I_B = -5 mA		-	-	0.5	
$V_{BE(SAT)}$	Base-Emitter saturation Voltage (*)	I_C = -10 mA, I_B = -1 mA		-	-	0.8	V
		I_C = -50 mA, I_B = -5 mA		-	-	0.9	
f_T	Transition frequency	I_C = -30 mA, V_{CE} = -30 V, f = 100 MHz	2N3636	150	-	-	MHz
			2N3637	200	-	-	
C_{ob}	Output Capacitance	I_E = 0, V_{CB} = -20 V, f = 100 kHz		-	-	10	pF
C_{ib}	Input Capacitance	I_C = 0, V_{EB} = -1 V, f = 100 kHz		-	-	75	PF

SWITCHING TIMES

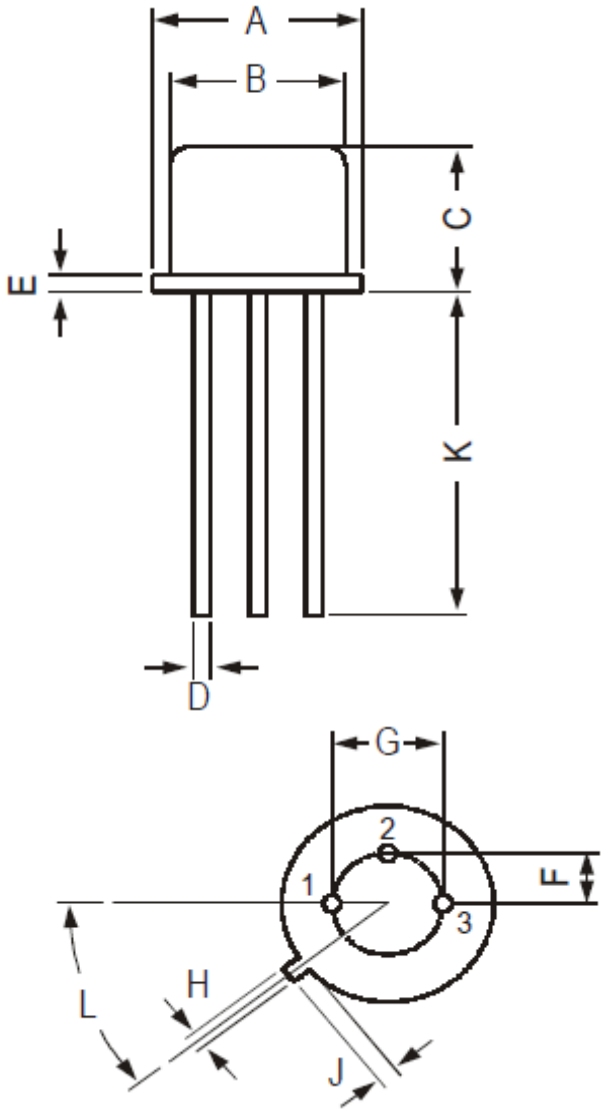
Symbol	Ratings		Value	Unit
t_{on}	Turn-on time	I_C = -50 mA, I_{B1} = $-I_{B2}$ = -5 mA, V_{CC} = 100 V, C_{BE} = 4 V	400	ns
t_{off}	Turn-off time		600	

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

PNP 2N3636 – 2N3637

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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