

## 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	$T_{amb} = 25^\circ\text{C}$	1
		$T_{case} = 25^\circ\text{C}$	5
$T_J$	<i>Junction Temperature</i>	200	$^\circ\text{C}$
$T_{Stg}$	Storage Temperature Range	-65 to +200	$^\circ\text{C}$
$T_{amb}$	Operating Ambient Temperature	-65 to +150	$^\circ\text{C}$

#### ELECTRICAL CHARACTERISTICS

TC=25 $^\circ\text{C}$  unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -100\text{ V}, I_E = 0$	-	-	-100	nA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -3\text{ V}, I_C = 0$	-	-	-50	nA
$V_{CEO}$	Collector Emitter Breakdown Voltage (*)	$I_C = -10\text{ mA}, I_B = 0$	-175	-	-	V
$V_{CBO}$	Collector Base Breakdown Voltage	$I_C = -100\text{ }\mu\text{A}, I_E = 0$	-175	-	-	V
$V_{EBO}$	Emitter Base Breakdown Voltage	$I_E = -10\text{ mA}, I_C = 0$	-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 (*)	$I_C = -0.1 \text{ mA}$ $V_{CE} = -10 \text{ V}$	2N3636	40	-	-	-
			2N3637	80	-	-	
		$I_C = -1 \text{ mA}$ $V_{CE} = -10 \text{ V}$	2N3636	45	-	-	
			2N3637	90	-	-	
		$I_C = -10 \text{ mA}$ $V_{CE} = -10 \text{ V}$	2N3636	50	-	-	
			2N3637	100	-	-	
		$I_C = -50 \text{ mA}$ $V_{CE} = -10 \text{ V}$	2N3636	50	-	150	
	2N3637	100	-	300			
$V_{CE(SAT)}$	Collector-Emitter saturation Voltage (*)	$I_C = -10 \text{ mA}, I_B = -1 \text{ mA}$		-	-	0.3	V
		$I_C = -50 \text{ mA}, I_B = -5 \text{ mA}$		-	-	0.5	
$V_{BE(SAT)}$	Base-Emitter saturation Voltage (*)	$I_C = -10 \text{ mA}, I_B = -1 \text{ mA}$		-	-	0.8	V
		$I_C = -50 \text{ mA}, I_B = -5 \text{ mA}$		-	-	0.9	
$f_T$	Transition frequency	$I_C = -30 \text{ mA}, V_{CE} = -30 \text{ V}$ $f = 100 \text{ MHz}$	2N3636	150	-	-	MHz
			2N3637	200	-	-	
$C_{ob}$	Output Capacitance	$I_E = 0, V_{CB} = -20 \text{ V}, f = 100 \text{ kHz}$		-	-	10	pF
$C_{ib}$	Input Capacitance	$I_C = 0, V_{EB} = -1 \text{ V}, f = 100 \text{ kHz}$		-	-	75	PF

### SWITCHING TIMES

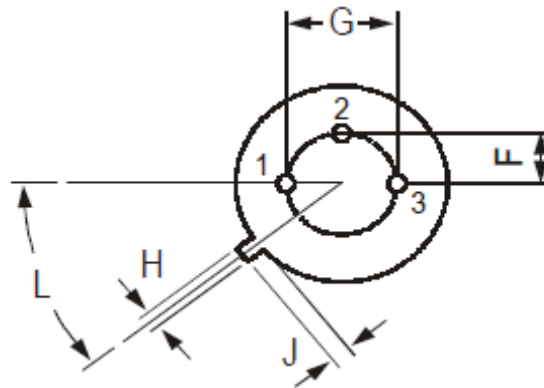
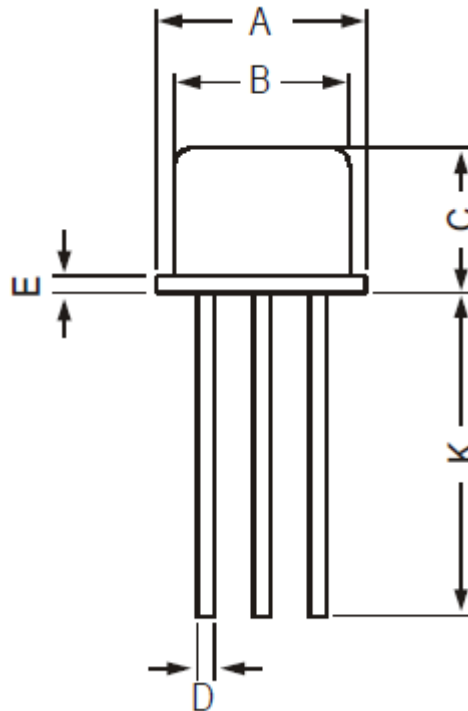
Symbol	Ratings	Value	Unit
$t_{on}$	Turn-on time	400	ns
$t_{off}$	Turn-off time		
		600	

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

## 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

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.