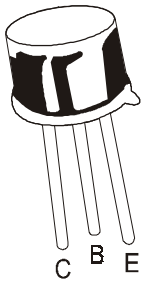
PNP SILICON PLANAR RF TRANSISTORS

2N3635
2N3636
2N3637



TO-39
Metal Can Package

2N3635 and 2N3637 Are PNP Silicon Transistros For High Voltage Switching and Low Power Amplifier.

ABSOLUTE MAXIMUM RATINGS (Ta=25ºC unless specified otherwise)

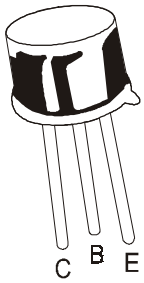
DESCRIPTION	SYMBOL	2N3635	2N3636, 37	UNITS
Collector Emitter Voltage	V_{CEO}	140	175	V
Collector Base Voltage	V_{CBO}	140	175	V
Emitter Base Voltage	V_{EBO}	5		V
Collector Current	I_C	1		A
Power Dissipation @ Ta=25ºC	P_D	1		W
Derate Above 25ºC		5.71		mW/ºC
Power Dissipation@ Tc=25ºC	P_D	5		W
Derate Above 25ºC		28.6		mW/ºC
Operating And Storage Junction Temperature Range	T_j, T_{stg}	-65 to +200		ºC

ELECTRICAL CHARACTERISTICS (Ta=25ºC unless specified otherwise)

DESCRIPTION	SYMBOL		MIN	MAX	UNITS
Collector Emitter Breakdown Voltage	B_{VCEO} *	I_C=10mA, I_B =0			
2N3635			140		V
2N3636, 37			175		V
Collector Base Breakdown Voltage	B_{VCBO}	I_C=100µA, I_E =0			
2N3635			140		V
2N3636, 37			175		V
Emitter Base Breakdown Voltage	B_{VEBO}	I_E=10µA, I_C=0	5		V
Collector Leakage Current	I_{CBO}	V_{CB}=100V, I_E=0		100	nA
Emitter Leakage Current	I_{EBO}	V_{EB}=3V, I_C=0		50	nA
Collector Emitter Saturation Voltage	$V_{CE(sat)}$ *	I_C=10mA, I_B =1mA		0.3	V
		I_C=50mA, I_B =5mA		0.5	V
Base Emitter Saturation Voltage	$V_{BE(Sat)}$ *	I_C=10mA,I_B=1mA		0.8	V
		I_C=50mA,I_B=5mA	0.65	0.9	V

PNP SILICON PLANAR RF TRANSISTORS

2N3635
2N3636
2N3637



TO-39
Metal Can Package

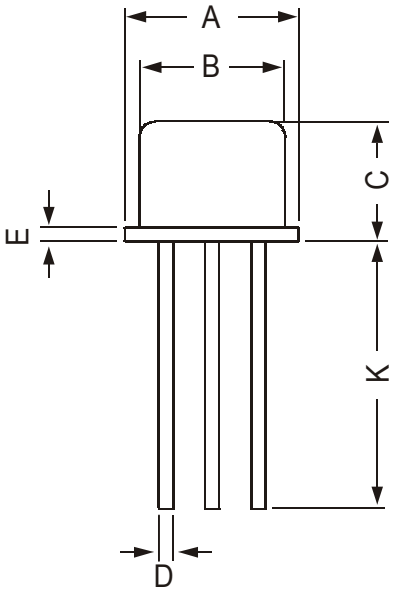
DESCRIPTION	SYMBOL		MIN	MAX	UNITS
DC Current Gain	h_{FE}	I_C=2mA,V_{CE}=10V			
2N 3635, 37			80		
2N3636			40		
		I_C=1mA,V_{CE}=10V			
2N 3635, 37			90		
2N3636			45		
		I_C=10mA*,V_{CE}=10V			
2N 3635, 37			100		
2N3636			50		
		I_C=50mA*,V_{CE}=10V			
2N 3635, 37			100	300	
2N3636			50	130	
		I_C=150mA*,V_{CE}=10V			
2N 3635, 37			50		
2N3636			25		

SMALL SIGNAL CHARACTERISTICS (at f =1MHz otherwise specified)

Transition Frequency	f_T	I_C=30mA, V_{CE}=30V			
2N 3635, 37		f=100MHz	200		MHz
2N3636			150		MHz
Current Gain	$\lvert h_{fe} \rvert$	I_C=10mA, V_{CE}=10V,			
2N 3635, 37		f=1kHz	80	320	
2N3636			40	160	
Input Impedence	h_{ie}	I_C=10mA, V_{CE}=10V			
2N 3635, 37			200	1200	Ω
2N3636			100	600	Ω
Reverse Voltage Feedback Ratio	h_{re}	I_C=10mA, V_{CE}=10V		3	$x10^{-4}$
Output Admittance	h_{oe}	I_C=10mA, V_{CE}=10V		200	UMHOS
Noise Figure	NF	I_C= 500mA, V_{CE}=10V, Rs=1KΩ			
Output Capacitance	C_{ob}	V_{CB}=20V, I_E=0, f=100KHz	10		pF
Input Capacitance	C_{ib}	V_{EB}=1V, I_C=0, f=100KHz	75		pF
Turn on Time	t_{on}	I_C=50mA, I_{B1}=I_{B2}=5mA			
		V_{CC}=100V, V_{BE}=4V	400		ns
Turn off Time		I_C=50mA, I_{B1}=I_{B2}=5mA	600		ns
		V_{CC}=100V, V_{BE}=4V			

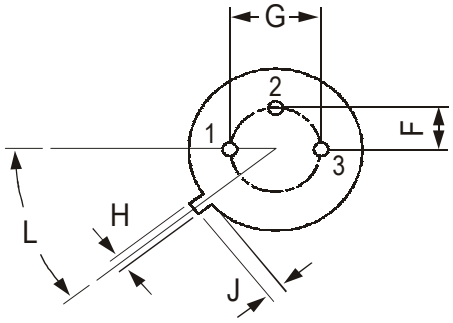
***Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2%**

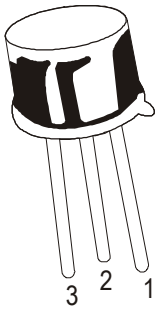
TO-39 Metal Can Package



All dimensions are in mm

DIM	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 DEG	48 DEG





PIN CONFIGURATION
1. EMITTER
2. BASE
3. COLLECTOR

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/Qty	Size	Qty	Size	Qty	Gr Wt
TO-39	500 pcs/polybag	540 gm/500 pcs	3" x 7.5" x 7.5"	20K	17" x 15" x 13.5"	32K	40 kgs

Disclaimer

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