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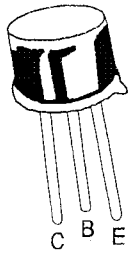
PNP SILICON PLANAR TRANSISTORS

2N4234, 2N4235
2N4236

TO-39
Metal Can Package



General Purpose Transistor

ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	2N4234	2N4235	2N4236	UNIT
Collector Emitter Voltage	V_{CEO}	40	60	80	V
Collector Base Voltage	V_{CBO}	40	60	80	V
Emitter Base Voltage	V_{EBO}	7.0			V
Base Current	I_B	200			mA
Collector Current Continuous	I_C	1.0			A
Power Dissipation @ T_a=25°C	P_D	1.0			W
Derate Above 25°C		5.7			mW/ °C
Power Dissipation @ T_c=25°C	P_D	6.0			W
Derate Above 25°C		34			mW/ °C
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +200			°C

THERMAL CHARACTERISTICS

Junction to Case	$R_{th\ (j\text{-}c)}$	29	°C/W

ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	2N4234	2N4235	2N4236	UNIT
Collector Emitter Voltage	V_{CEO}	I_C=1mA, I_B=0	40	60	80	V
Collector Cut Off Current	I_{CEO}	V_{CE}=30V, I_B=0	1.0			mA
		V_{CE}=40V, I_B=0		1.0		mA
		V_{CE}=60V, I_B=0			1.0	mA
Collector Cut Off Current	I_{CEX}	V_{CE}=40V, V_{EB}=1.5V	0.1			mA
		V_{CE}=60V, V_{EB}=1.5V		0.1		mA
		V_{CE}=80V, V_{EB}=1.5V			0.1	mA
		T_C=150°C				
		V_{CE}=30V, V_{EB}=1.5V	1.0			mA
		V_{CE}=40V, V_{EB}=1.5V		1.0		mA
		V_{CE}=60V, V_{EB}=1.5V			1.0	mA

			MIN	TYP	MAX	
Collector Cut Off Current	I_{CBO}	V_{CB}=Rated V_{CBO}, I_E=0			0.1	mA
Emitter Cut Off Current	I_{EBO}	V_{EB}=7V, I_C=0			0.5	mA
DC Current Gain	*h_{FE}	I_C=100mA, V_{CE}=1V	40			
		I_C=250mA, V_{CE}=1V	30		150	
		I_C=500mA, V_{CE}=1V	20			
		I_C=1A, V_{CE}=1V	10			

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

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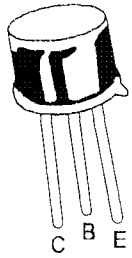


TO-39
Metal Can Package

ELECTRICAL CHARACTERISTICS (T_a=25°C unless specified otherwise)

SMALL SIGNAL CHARACTERISTICS

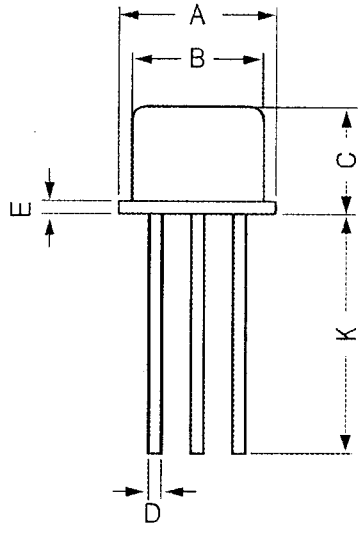
DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Emitter Saturation Voltage	*$V_{CE\ (sat)}$	I_C=1A, I_B=125mA			0.6	V
Base Emitter Saturation Voltage	*$V_{BE\ (sat)}$	I_C=1A, I_B=0.1A			1.5	V
Base Emitter On Voltage	*$V_{BE\ (on)}$	I_C=250mA, V_{CE}=1V			1.0	V

SMALL SIGNAL CHARACTERISTICS

Output Capacitance	C_{obo}	V_{CB}=10V, I_E=0, f=100KHz			100	pF
Small Signal Current Gain	h_{fe}	I_C=50mA, V_{CE}=10V, f=1KHz	25			
Current Gain Bandwidth Product	f_T	I_C=100mA, V_{CE}=10V, f=1MHz	3.0			MHz

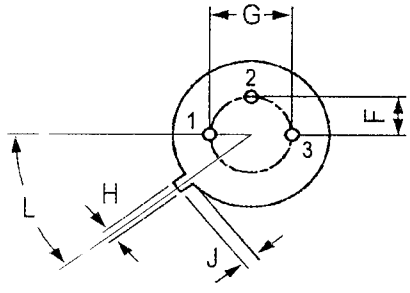
*Pulse Test: Pulse Width ≤ 300μs, Duty Cycle ≤ 2%

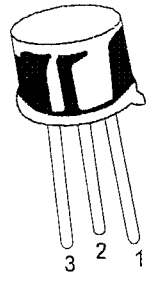
TO-39 Metal Can Package



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