Elektronische Bauelemente

PZT949

PNP Transistor

Silicon Planar High Current Gain Transistor

RoHS Compliant Product

A suffix of "-C" specifies halogen & lead-free

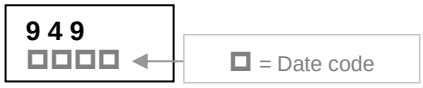
APPLICATION

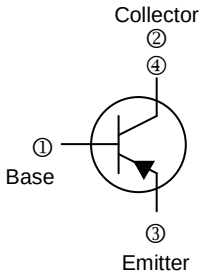
PZT949 is designed for general purpose switching and amplifier applications.

FEATURES

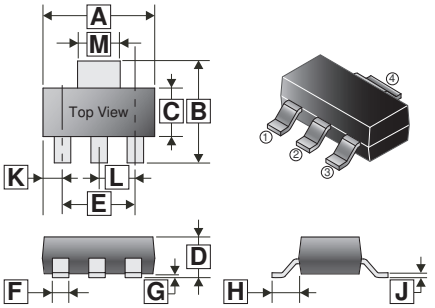
- 6Amps continuous current, up to 20Amps pulse current
- Very low saturation voltage

MARKING





SOT-223



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.30	6.70	G	0.02	0.10
B	6.70	7.30	H	1.50	2.00
C	3.30	3.70	J	0.25	0.35
D	1.42	1.90	K	0.85	1.05
E	4.60 REF.		L	2.30 REF.	
F	0.60	0.80	M	2.90	3.10

MAXIMUM RATINGS* (Tamb=25 °C, unless otherwise specified)

PARAMETER	SYMBOL	VALUE	UNIT
Collector to Base Voltage	V_{CBO}	-50	V
Collector to Emitter Voltage	V_{CEO}	-30	V
Emitter to Base Voltage	V_{EBO}	-6	V
Collector Current (DC)	I_C	-5.5	A
Collector Current (Pulse)	I_{CM}	-20	A
Total Power Dissipation	P_D	3	W
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	℃

*The power which can be dissipated assuming the device is mounted in typical manner on a PCB with copper equal to 2 inches x 2 inches

ELECTRICALCHARACTERISTICS (Tamb=25 °C unless otherwise specified)

PARAMETER		SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
Collector - Base Breakdown Voltage		BV_{CBO}	-50	-	-	V	I_C = -100μA , I_E = 0
Collector - Emitter Breakdown Voltage (With Real Device Limit)		BV_{CER}	-50	-	-	V	I_C = -1μA , RB≦1KΩ
Collector - Emitter Breakdown Voltage		BV_{CEO}	-30	-	-	V	I_C = -10mA, I_B = 0
Emitter - Base Breakdown Voltage		BV_{EBO}	-6	-	-	V	I_E = -100μA ,I_C = 0
Collector Base Cut - Off Current		I_{CBO}	-	-	-50	nA	V_{CB} = -40V, I_E = 0
Collector Base Cut - Off Current (With Real Device Limit)		I_{CER}	-	-	-50	nA	V_{CB} = -40V ,R≦1KΩ
Emitter Base Cut - Off Current		I_{EBO}	-	-	-10	nA	V_{EB} = -6V, I_C = 0
Collector - Emitter Saturation Voltage		*$V_{CE(sat)1}$	-	-	-75	mV	I_C = -0.5A, I_B = -20 mA
		*$V_{CE(sat)2}$	-	-	-140	mV	I_C = -1.0A, I_B = -20 mA
		*$V_{CE(sat)3}$	-	-	-270	mV	I_C = -2.0A, I_B = -200 mA
		*$V_{CE(sat)4}$	-	-	-440	mV	I_C = -5.5A, I_B = -500 mA
Base - Emitter Voltage		*$V_{BE(sat)}$	-	-	-1.25	V	I_C = -5.5A, I_B = -500 mA
		*$V_{BE(on)}$	-	-	-1.06	V	V_{CE} = -1V, I_C = -5.5 A
DC Current Gain		*h_{FE1}	100	-	-		V_{CE} = -1V, I_C = -10 mA
		*h_{FE2}	100	-	300		V_{CE} = -1V, I_C = -1 A
		*h_{FE3}	75	-	-		V_{CE} = -1V, I_C = -5 A
		*h_{FE4}	-	35	-		V_{CE} = -2V, I_C = -20 A
Transition Frequency		f_T	-	100	-	MHz	V_{CE} = -10V, I_C = -100mA, f = 50 MHz
Collector Output Capacitance		C_{OB}	-	122	-	pF	V_{CB} = -10 V, I_E =0, f = 1 MHz
Switching Time	Turn-on	t_{ON}	-	120	-	nS	V_{CC} = -10 V, I_C = -4 A, I_{B1} = -I_{B2} = -400 mA
	Turn-off	t_{OFF}	-	130	-	nS	

*Measured under pulse condition. Pulse width = 300μs, duty cycle ≦ 2%.

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CHARACTERISTIC CURVES

