Elektronische Bauelemente

PZT3904-C

NPN Silicon

Silicon Planar Medium Power Transistor

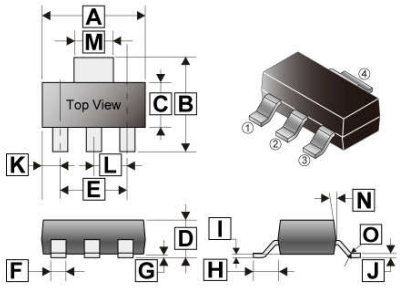
RoHS Compliant Product

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

DESCRIPTION

- General Purpose Amplifier and Switch Application
- Low Voltage and Low Current

SOT-223



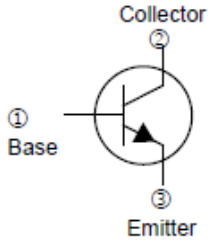
REF.	Millimeter Min.	Millimeter Max.	REF.	Millimeter Min.	Millimeter Max.
A	5.90	6.70	G	-	0.18
B	6.70	7.30	H	2.00 REF.	
C	3.30	3.80	J	0.20	0.40
D	1.42	1.90	K	1.10 REF.	
E	4.45	4.75	L	2.30 REF.	
F	0.60	0.85	M	2.80	3.20

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOT-223	2.5K	13 inch

ORDER INFORMATION

Part Number	Type
PZT3904-C	Lead (Pb)-free and Halogen-free



MAXIMUM RATINGS (T_A=25℃ unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current	I_C	200	mA
Total Power Dissipation	P_D	1	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	125	℃/W
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	℃

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	60	-	-	V	I_C=10uA, I_E=0
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	40	-	-	V	I_C=1mA, I_B=0
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	6	-	-	V	I_C=10uA, I_C=0
Collector Cut-Off Current	I_{CBO}	-	-	50	nA	V_{CB}=30V, I_E=0
Emitter Cut-Off Current	I_{CEX}	-	-	50	nA	V_{CE}=30V, V_{BE}=3V
Collector Cut-Off Current	I_{EBO}	-	-	50	nA	V_{EB}=5V, I_C=0
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.2	V	I_C=10mA, I_B=1mA
		-	-	0.3	V	I_C=50mA, I_B=5mA
Base-Emitter Voltage	$V_{BE(sat)}$	0.65	-	0.85	V	I_C=10mA, I_B=1mA
		-	-	0.95	V	I_C=50mA, I_B=5mA
DC Current Gain	h_{FE1}	40	-	-		V_{CE}=1V, I_C=100uA
	h_{FE2}	70	-	-		V_{CE}=1V, I_C=1mA
	h_{FE3}	100	-	300		V_{CE}=1V, I_C=10mA
	h_{FE4}	60	-	-		V_{CE}=1V, I_C=50mA
Transition Frequency	f_T	300	-	-	MHz	V_{CE}=20V, I_C=10mA, f=100MHz
Collector Output Capacitance	C_{OB}	-	4	-	pF	V_{CB}=5V ,I_E=0, f=1MHz
Delay Time	T_d	-	35	-	nS	V_{CC}=3V, $V_{BE(OFF)}$=0.5V
Rise Time	T_r	-	35	-		I_C=10mA, I_{B1}= -I_{B1}=1mA
Storage Time	T_s	-	200	-		V_{CC}=3V, I_C=10mA
Fall Time	T_f	-	50	-		I_{B1}= -I_{B1}=1mA

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CHARACTERISTIC CURVES