

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

DESCRIPTION

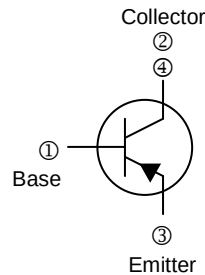
- General Purpose Amplifier and Switch Application
- Low Voltage and Low Current

PACKAGE INFORMATION

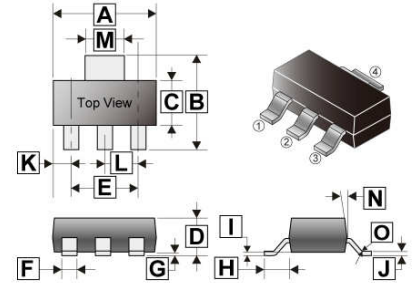
Package	MPQ	Leader Size
SOT-223	2.5K	13 inch

ORDER INFORMATION

Part Number	Type
PZT3906-C	Lead (Pb)-free and Halogen-free



SOT-223



REF.	Min.	Max.	REF.	Min.	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

MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Ratings	Unit
Collector-Base Voltage	V _{CBO}	-40	V
Collector-Emitter Voltage	V _{CEO}	-40	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current	I _C	-200	mA
Total Power Dissipation	P _D	1	W
Thermal Resistance from Junction to Ambient	R _{θJA}	125	°C/W
Junction and Storage Temperature	T _J , T _{STG}	150, -55~150	°C

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Conditions
Collector-Base Breakdown Voltage ¹	V _{(BR)CBO}	-40	-	-	V	I _C = -10μA, I _E = 0
Collector-Emitter Breakdown Voltage ¹	V _{(BR)CEO}	-40	-	-	V	I _C = -1mA, I _B = 0
Emitter-Base Breakdown Voltage ¹	V _{(BR)EBO}	-5	-	-	V	I _C = -10μA, I _C = 0
Collector Cut-Off Current	I _{CBO}	-	-	-50	nA	V _{CB} = -30V, I _E = 0
Collector Cut-Off Current	I _{EBO}	-	-	-500	nA	V _{CE} = -30V, I _C = 0
Emitter Cut-Off Current	I _{CEX}	-	-	-50	nA	V _{CE} = -30V, V _{BE(OFF)} = -3V
Collector-Emitter Saturation Voltage ¹	V _{CE(sat)}	-	-	-0.25	V	I _C = -10mA, I _B = -1mA
		-	-	-0.4	V	I _C = -50mA, I _B = -5mA
Base-Emitter Voltage ¹	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} ¹	60	-	-		V _{CE} = -1V, I _C = -100μA
	h _{FE2}	80	-	-		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	250	-	-	MHz	V _{CE} = -20V, I _C = -10mA, f = 100MHz
Collector Output Capacitance	C _{OB}	-	4.5	-	pF	V _{CB} = -5V, I _E = 0, f = 1MHz
Emitter Input Capacitance	C _{IB}	-	10	-	pF	V _{BE} = -0.5V, I _C = 0, f = 1MHz
Delay Time	T _d	-	35	-		V _{CC} = -3V, V _{BE(OFF)} = -0.5V I _C = -10mA, I _{B1} = -I _{B1} = -1mA
Rise Time	T _r	-	35	-		
Storage Time	T _s	-	225	-		
Fall Time	T _f	-	75	-		

Note:

1. Pulse Test: Pulse width ≤ 380μs, duty cycle ≤ 2%

CHARACTERISTIC CURVES

