

RoHS Compliant Product

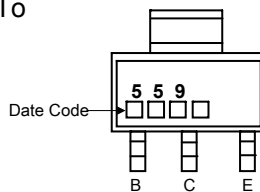
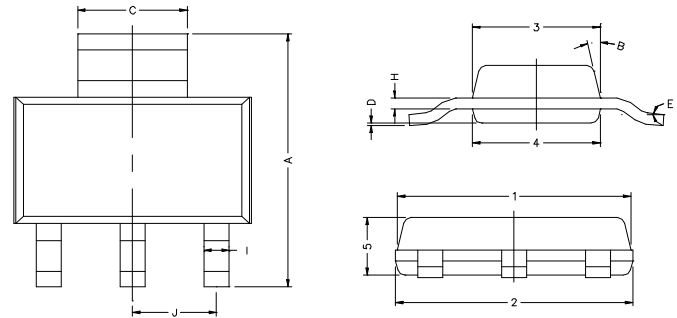
SOT-223

Description

The PZT559 is designed for general purpose switching and amplifier applications.

Features

- * Excellent Gain Characteristic Specified Up To 3 Amps.
- * 4 Amps Continuous Current, Up To 10 Amps Peak Current
- * Very Low Saturation Voltages



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.70	7.30	B	13 TYP.	
C	2.90	3.10	J	2.30 REF.	
D	0.02	0.10	1	6.30	6.70
E	0°	10°	2	6.30	6.70
I	0.60	0.80	3	3.30	3.70
H	0.25	0.35	4	3.30	3.70
			5	1.40	1.80

MAXIMUM RATINGS* (T_{amb}=25°C, unless otherwise specified)

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	-180	V
V _{CE0}	Collector-Emitter Voltage	-140	V
V _{EB0}	Emitter-Base Voltage	-6	V
I _c	Collector Current (DC)	-4	A
I _{CM}	Collector Current (Pulse)	-10	A
P _d	Total Power Dissipation	3	W
T _J , T _{stg}	Junction and Storage Temperature	-55~+150	°C

*The power which can be dissipated assuming the device is mounted in a typical on a P.C.B. with copper equal to 4 square inch min..

ELECTRICAL CHARACTERISTICS T_{amb}=25°C unless otherwise specified

Parameter	Symbol	Min	Typ.	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BV _{CB0}	-180	-	-	V	I _c =-100μA, I _E =0
Collector-Base Breakdown Voltage	BV _{CER}	-180	-	-	V	I _c =-1μA, R _B ≤ 1KΩ
Collector-Emitter Breakdown Voltage	*BV _{CE0}	-140	-	-	V	I _c =-10mA, I _B =0
Emitter-Base Breakdown Voltage	BV _{EB0}	-6	-	-	V	I _E =-100μA, I _c =0
Collector-Base Cutoff Current	I _{CB0}	-	-	-50	nA	V _{CB} =-150V, I _E =0
Collector-Base Cutoff Current	I _{CER}	-	-	-50	nA	V _{CB} =-150V, R _B ≤ 1KΩ
Emitter-Base Cutoff Current	I _{EB0}	-	-	-10	nA	V _{EB} =-6V, I _c =0
Collector Saturation Voltage	*V _{CE(sat)1}	-	-	-60	mV	I _c =-100mA, I _B =-5mA
	*V _{CE(sat)2}	-	-	-120		I _c =-500A, I _B =-50mA
	*V _{CE(sat)3}	-	-	-150		I _c =-1A, I _B =-100mA
	*V _{CE(sat)4}	-	-	-370		I _c =-3A, I _B =-300mA
Base Saturation Voltage	*V _{BE(sat)}	-	-	-1.11	V	I _c =-3A, I _B =-300mA
Base-Emitter Voltage	*V _{BE(on)}	-	-	-0.95	V	I _c =-3A, V _{CE} =-5V
DC Current Gain	*h _{FE1}	100	-	-		V _{CE} =-5V, I _c =-10mA
	*h _{FE2}	100	200	300		V _{CE} =-5V, I _c =-1A
	*h _{FE3}	75	140	-		V _{CE} =-5V, I _c =-3A
	*h _{FE4}	-	10	-		V _{CE} =-5V, I _c =-10A
Gain-Bandwidth Product	f _T	-	110	-	MHz	V _{CE} =-10V, I _c =-100mA, f=50MHz
Output Capacitance	C _{ob}	-	40	-	pF	V _{CB} =-20V, f=1MHz
On-Time	T _{on}	-	68	-	nS	V _{CC} =-50V, I _c =-1A, I _{B1} =I _{B2} =-100mA
Off-Time	T _{off}	-	1030	-		

*Measured under pulse condition. Pulse width= 300μs, Duty Cycle ≤2%

Characteristics Curve

