

RoHS Compliant Product

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

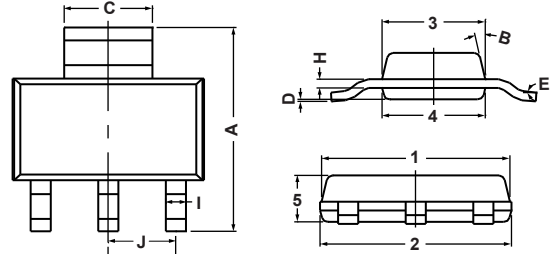
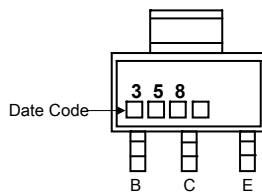
**SOT-223**

## Description

The PZT358 is designed for general purpose switching and amplifier applications.

## Features

- \* 6Amps Continuous Current, Up To 10Amps Peak Current
- \* Excellent Gain Characteristic, Specified Up To 10Amps
- \* Very Low Saturation Voltages



REF.	Min.	Max.	REF.	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<sub>amb</sub> = 25°C, unless otherwise specified)

Symbol	Parameter	Value	Units
V <sub>CB0</sub>	Collector-Base Voltage	200	V
V <sub>CEO</sub>	Collector-Emitter Voltage	100	V
V <sub>EB0</sub>	Emitter-Base Voltage	6	V
I <sub>C</sub>	Collector Current (DC)	6	A
	Collector Current (Pulse)	10	
P <sub>D</sub>	Total Power Dissipation	3	W
T <sub>J</sub> , T <sub>stg</sub>	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<sub>amb</sub> = 25°C unless otherwise specified

Parameter	Symbol	Min	Typ.	Max	Uni	Test Conditions
Collector-Base Breakdown Voltage	BV <sub>CB0</sub>	200	-	-	V	I <sub>C</sub> = 100μA, I <sub>E</sub> = 0
Collector-Emitter Breakdown Voltage	*BV <sub>CEO</sub>	100	-	-	V	I <sub>C</sub> = 10mA, I <sub>B</sub> = 0
Emitter-Base Breakdown Voltage	BV <sub>EB0</sub>	6	-	-	V	I <sub>E</sub> = 100μA, I <sub>C</sub> = 0
Collector-Base Cutoff Current	I <sub>CB0</sub>	-	-	10	nA	V <sub>CB</sub> = 150V, I <sub>E</sub> = 0
Collector-Base Cutoff Current	I <sub>CES</sub>	-	-	50	nA	V <sub>CE</sub> = 100V
Emitter-Base Cutoff Current	I <sub>EB0</sub>	-	-	10	nA	V <sub>EB</sub> = 6V, I <sub>C</sub> = 0
Collector Saturation Voltage	*V <sub>CE(sat)1</sub>	-	-	50	mV	I <sub>C</sub> = 100mA, I <sub>B</sub> = 5mA
	*V <sub>CE(sat)2</sub>	-	-	150		I <sub>C</sub> = 2A, I <sub>B</sub> = 100mA
	*V <sub>CE(sat)3</sub>	-	-	340		I <sub>C</sub> = 5A, I <sub>B</sub> = 500mA
Base Saturation Voltage	*V <sub>BE(sat)</sub>	-	-	1.25	V	I <sub>C</sub> = 5A, I <sub>B</sub> = 500mA
Base-Emitter Voltage	*V <sub>BE(on)</sub>	-	-	1.1	V	V <sub>CE</sub> = 2V, I <sub>C</sub> = 5A
DC Current Gain	*h <sub>FE1</sub>	100	-	-		V <sub>CE</sub> = 2V, I <sub>C</sub> = 10mA
	*h <sub>FE2</sub>	100	200	300		V <sub>CE</sub> = 2V, I <sub>C</sub> = 2A
	*h <sub>FE3</sub>	50	-	-		V <sub>CE</sub> = 2V, I <sub>C</sub> = 4A
	*h <sub>FE4</sub>	20	-	-		V <sub>CE</sub> = 2V, I <sub>C</sub> = 10A
Gain-Bandwidth Product	f <sub>T</sub>	-	130	-	MHz	V <sub>CE</sub> = 10V, I <sub>C</sub> = 100mA, f = 50MHz
Output Capacitance	C <sub>ob</sub>	-	35	-	pF	V <sub>CB</sub> = 10V, I <sub>E</sub> = 0, f = 1MHz
On-Time	T <sub>on</sub>	-	55	-	nS	V <sub>CC</sub> = 10V, I <sub>C</sub> = 1A, I <sub>B1</sub> = I <sub>B2</sub> = 100mA
Off-Time	T <sub>off</sub>	-	1650	-		

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

Spice parameter data is available upon request for this device.

CHARACTERISTIC CURVES

