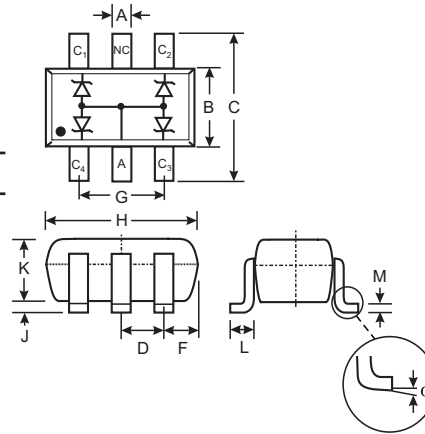


Features

- Nominal Zener Voltages: 5.6V, 6.8V, 12V, 15V, 20V
- Ultra-Small Surface Mount Package
- Ideal For Transient Suppression
- Lead Free/RoHS Compliant (Note 4)

Mechanical Data

- Case: SOT-363
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- Orientation: See Diagram
- Marking: See Table Below
- Weight: 0.006 grams (approx.)
- Ordering Information: See Page 3



NC = Not Connected

SOT-363		
Dim	Min	Max
A	0.10	0.30
B	1.15	1.35
C	2.00	2.20
D	0.65 Nominal	
F	0.30	0.40
H	1.80	2.20
J	—	0.10
K	0.90	1.00
L	0.25	0.40
M	0.10	0.25
α	0°	8°
All Dimensions in mm		

Maximum Ratings @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward Voltage (Note 1) @ $I_F = 10\text{mA}$	V_F	0.9	V
Power Dissipation	P_d	200	mW
Thermal Resistance, Junction to Ambient Air (Note 3)	$R_{\theta JA}$	625	$^\circ\text{C/W}$
Operating and Storage Temperature Range (Note 3)	T_J, T_{STG}	-65 to +150	$^\circ\text{C}$

Type Number	Marking Code	Zener Voltage Range (Note 1)			Maximum Zener Impedance (Note 2)				Maximum Reverse Current (Note 1)		Temperature Coefficient of Zener Voltage @ $I_{ZT} = 5\text{mA}$	
		$V_Z @ I_{ZT} = 5.0\text{mA}$			$Z_{ZT} @ I_{ZT}$		$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		$T_C \text{ (mV/}^\circ\text{C)}$	
		Nom (V)	Min (V)	Max (V)	Ω	mA	Ω	mA	μA	V	Min	Max
QZX363C5V6	K5F	5.6	5.32	5.88	40	5.0	400	1.0	1.0	2.0	-2.0	2.5
QZX363C6V8	K6F	6.8	6.47	7.14	15	5.0	80	1.0	2.0	4.0	1.2	4.5
QZX363C12	KFF	12	11.4	12.7	25	5.0	150	1.0	0.1	8.0	6.0	10.0
QZX363C15	KJF	15	13.8	15.6	30	5.0	200	1.0	0.1	10.5	9.2	13.0
QZX363C20	KMF	20	19.0	21.0	55	5.0	225	1.0	0.1	14	14.4	18.0

- Notes:
- Short duration test pulse used to minimize self-heating effect.
 - $f = 1\text{KHz}$.
 - Device mounted on FR-4 PC board with recommended pad layout, which can be found on our website at <http://www.diodes.com/datasheets/ap02001.pdf>.
 - No purposefully added lead.

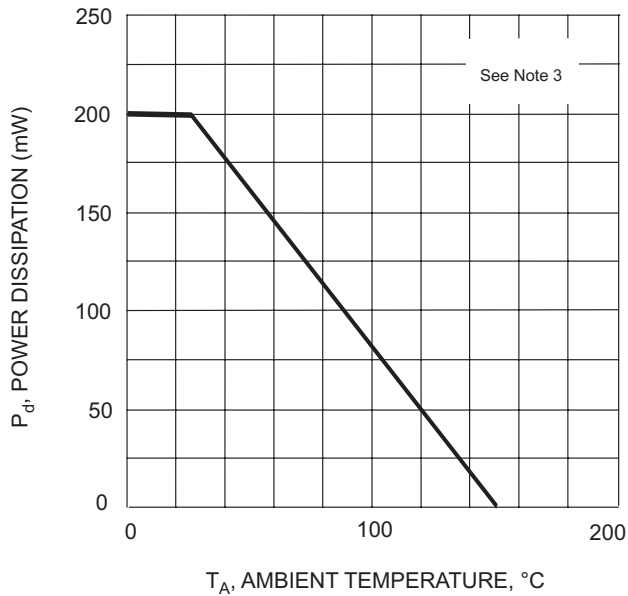


Fig. 1. Power Derating Curve

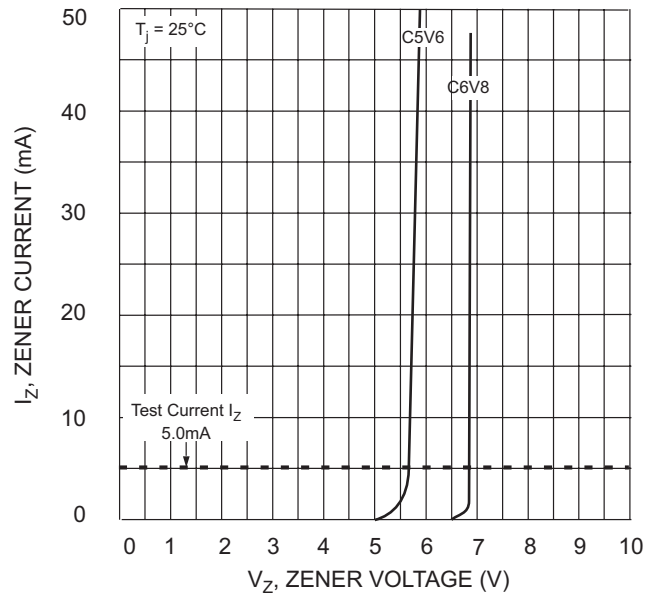


Fig. 2. Zener Breakdown Characteristics

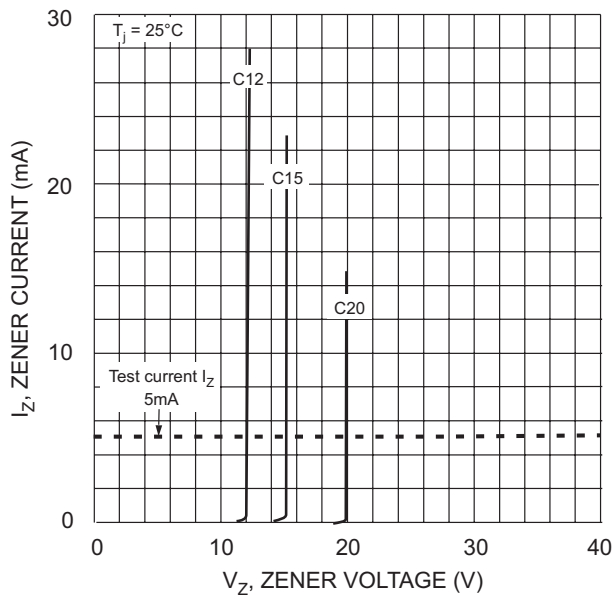


Fig. 3. Zener Breakdown Characteristics

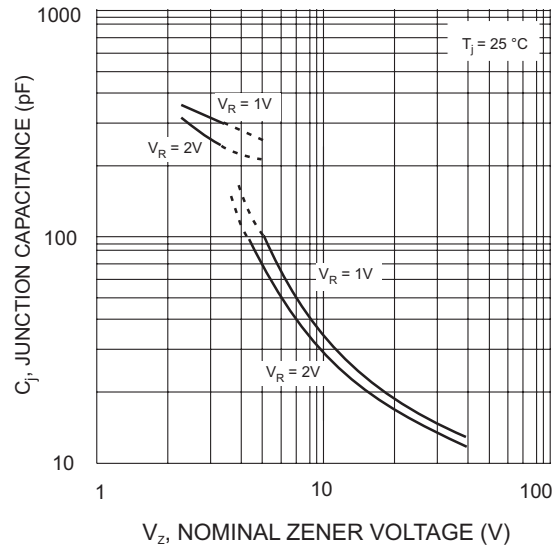


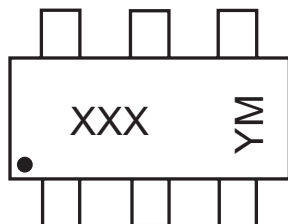
Fig. 4. Junction Capacitance vs. Nominal Zener Voltage

Ordering Information (Note 5)

Device	Packaging	Shipping
QZX363C5V6-7-F QZX363C6V8-7-F QZX363C12-7-F QZX363C15-7-F QZX363C20-7-F	SOT-363	3000/Tape & Reel

Notes: 5. For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.

Marking Information



XXX = Product Type Marking Code (See Sheet 1)
 YM = Date Code Marking
 Y = Year ex: N = 2002
 M = Month ex: 9 = September

Date Code Key

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Code	L	M	N	P	R	S	T	U	V	W

Month	Jan	Feb	March	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	9	O	N	D

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