



TRIPLE BI-DIRECTIONAL SURFACE MOUNT ZENER DIODE ARRAY

Features

- Nominal Zener Voltages: 5.5V, 6.4V, 7.0V, 20.8V
- Ultra-Small Surface Mount Package
- Ideal For Transient Suppression
- Lead Free/RoHS Compliant (Note 4)
- "Green" Device (Note 5 and 6)

Mechanical Data

- Case: SOT-363
- Case Material: Molded Plastic, "Green" Molding Compound. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020D
- Terminals: Solderable per MIL-STD-202, Method 208
- Lead Free Plating (Matte Tin Finish annealed over Alloy 42 leadframe).
- Marking Information: See Page 2
 Ordering Information: See Page 2
- Weight: 0.0061 grams (approximate)



Device Schematic



Top View

Thermal Characteristics

Characteristic		Symbol	Value	Unit		
Power Dissipation	(Note1)	P_{D}	200	mW		
Thermal Resistance, Junction to Ambient Air	(Note 1)	$R_{ hetaJA}$	625	°C/W		
Operating and Storage Temperature Range		$T_{J_i}T_{STG}$	-65 to +150	°C		

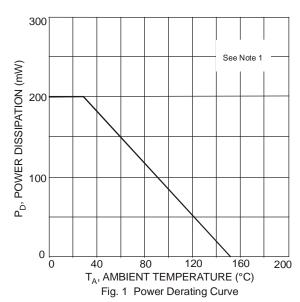
Electrical Characteristics @TA = 25°C unless otherwise specified

Type Marking Zener Voltage Range (Note 2)		Maximum Zener Impedance (Note 3)					n Reverse (Note 2)	Temperature Coefficient				
Number	Code	Vz @ IzT		Z _{ZT} @ I _{ZT}		Z _{ZK} @ I _{ZK}		I _R @ V _R		TC (mV/°C)		
		Nom (V)	Min (V)	Max (V)	Ω	mA	Ω	mA	μА	V	Min	Max
TBZ363C5V5	KL1	5.5	5.22	5.78	80	5.0	500	1.0	1.0	2.0	-5.5	-2.2
TBZ363C6V4	KL3	6.4	6.08	6.72	50	5.0	400	1.0	2.0	3.0	-4.0	0.5
TBZ363C7V0	KL5	7.0	6.65	7.35	18	5.0	200	1.0	2.0	4.0	-1.6	1.7
TBZ363C20V8	KV7	20.8	19.76	21.84	58	5.0	225	1.0	0.1	14	12.4	16.0

Notes:

- 1. Mounted on FR4 PC Board with recommended pad layout which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.
- 2. V_Z measured @ I_{ZT} using a short duration pulse. Standard voltage tolerance is 5%.
- 3. f = 1KHz.
- 4. No purposefully added lead.
- 5. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.
- 6. Product manufactured with Date Code UO (week 40, 2007) and newer are built with Green Molding Compound. Product manufactured prior to Date Code UO are built with Non-Green Molding Compound and may contain Halogens or Sb₂O₃ Fire Retardants.



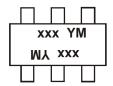


Ordering Information (Note 7)

Device	Packaging	Shipping
TBZ363C5V5-7-F	SOT-363	3000/Tape & Reel
TBZ363C6V4-7-F	SOT-363	3000/Tape & Reel
TBZ363C7V0-7-F	SOT-363	3000/Tape & Reel
TBZ363C20V8-7-F	SOT-363	3000/Tape & Reel

Notes: 7. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



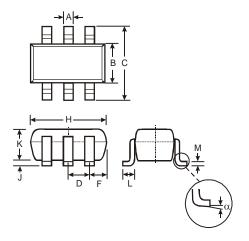
xxx = Product Type Marking Code (See Electrical Characteristics Table) YM = Date Code Marking Y = Year (ex: N = 2002) M = Month (ex: 9 = September)

Date Code Key

Year	2002	2003	2004	2005	200	6 20	07	2008	200	9	2010	2111	2012
Code	Ν	Р	R	S	Т	ı	J	V	W		Χ	Υ	Z
Month	Jan	Feb	Mar	Apr	May	Jun	Ju	I Au	ıg	Sep	Oct	Nov	Dec
Code	1	2	3	4	5	6	7	8	3	9	0	N	D

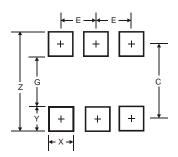


Package Outline Dimensions



	SOT-363						
Dim	Min	Max					
Α	0.10	0.30					
В	1.15 1.35						
С	2.00 2.20						
D	0.65 Nominal						
F	0.40	0.45					
Н	1.80	2.20					
7	0 0.10						
K	0.90	1.00					
١	0.25 0.40						
M	0.10	0.22					
α	0°	8°					
All Dimensions in mm							

Suggested Pad Layout



Dimensions	Value (in mm)
Z	2.5
G	1.3
Х	0.42
Y	0.6
С	1.9
E	0.65

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