

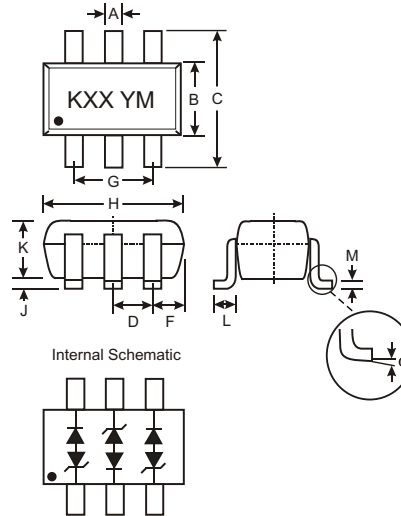
NEW PRODUCT

### Features

- Planar Die Construction
- 200mW Power Dissipation
- Nominal Zener Voltages: 5.5V, 6.4V, 7.0V, 20.8V
- Ultra-Small Surface Mount Package
- Low Capacitance Ideal for Transient Suppression on High Speed Data Lines
- Also Available in Lead Free Version

### Mechanical Data

- Case: SOT-363, Molded Plastic
- Case material - UL Flammability Rating 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Also available in Lead Free Plating (Matte Tin Finish). Please see Ordering Information, Note 4, Page 2
- Orientation: See Diagram
- Marking: See Page 2
- Weight: 0.006 grams (approx.)
- Ordering Information, See Page 2



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
$\alpha$	0°	8°
All Dimensions in mm		

### Maximum Ratings @ T<sub>A</sub> = 25°C unless otherwise specified

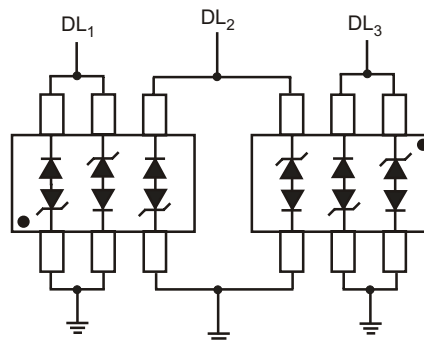
Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P <sub>d</sub>	200	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	R <sub>θJA</sub>	625	°C/W
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>STG</sub>	-65 to +150	°C

### Electrical Characteristics @ T<sub>A</sub> = 25°C unless otherwise specified

Type Number	Marking Code	Zener Voltage Range (Note 2)			Maximum Zener Impedance				Maximum Reverse Current		Maximum Junction Capacitance
		V <sub>Z</sub> @ I <sub>ZT</sub>			Z <sub>VT</sub> @ I <sub>ZT</sub>		Z <sub>VK</sub> @ I <sub>ZK</sub>		I <sub>R</sub> @ V <sub>R</sub>		C <sub>J</sub>
		Nom (V)	Min (V)	Max (V)	(Ω)	(mA)	(Ω)	(mA)	(μA)	(V)	pF
TLC363C5V5	K01	5.5	5.22	5.78	80	5.0	500	1.0	1.0	2.0	4.0
TLC363C6V4	K03	6.4	6.08	6.72	35	5.0	1800	.25	2.0	3.0	4.0
TLC363C7V0	K05	7.0	6.65	7.35	18	5.0	200	1.0	2.0	4.0	4.0
TLC363C20V8	KN7	20.8	19.76	21.84	58	5.0	225	1.0	0.05	14	4.0

- Notes: 1. Mounted on FR4 PC Board with recommended pad layout at <http://www.diodes.com/datasheets/ap02001.pdf>.  
2. V<sub>Z</sub> measured @ I<sub>ZT</sub> using a short duration pulse. Standard voltage tolerance is 5%.

### APPLICATION



Two packages connected to yield three low capacitance bi-directional zener circuits.

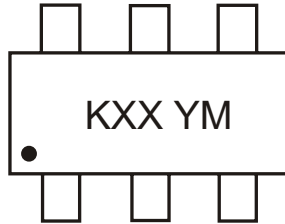
**Ordering Information** (Note 3, 4)

Device	Packaging	Shipping
(Type Number)-7*	SOT-363	3000/Tape & Reel

\* Add "-7" to the appropriate type number in Table 1 from Sheet 2 example: 6.4V Zener = TLC363C6V4-7.

- Notes:
- For Packaging Details, go to our website at <http://www.diodes.com/datasheets/ap02007.pdf>.
  - For Lead Free version (with Lead Free terminal finish) part number, please add "-F" suffix to part number above.  
Example: TLC363C6V4-7-F.

**Marking Information**



KXX = Product Type Marking Code, See Page 1  
 YM = Date Code Marking  
 Y = Year ex: N = 2002  
 M = Month ex: 9 = September

Date Code Key

Year	2002	2003	2004	2005	2006	2007	2008	2009
Code	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

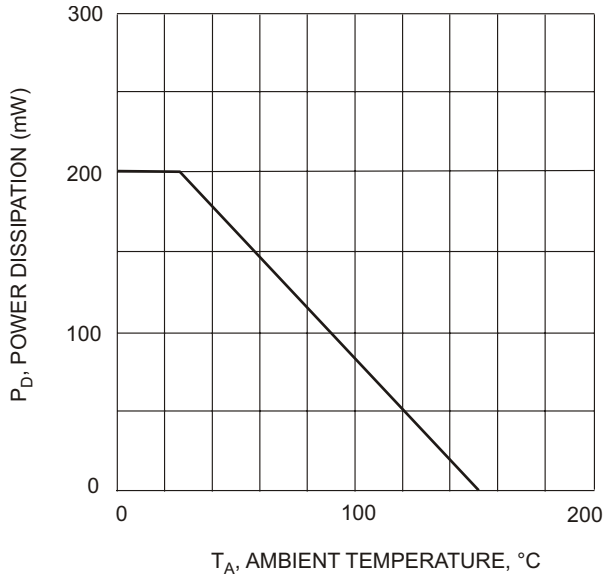


Fig. 1. Power Derating Curve