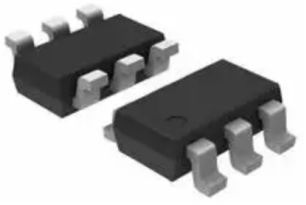
LM-AZ2013-05C

Semiconductor TVS Diode

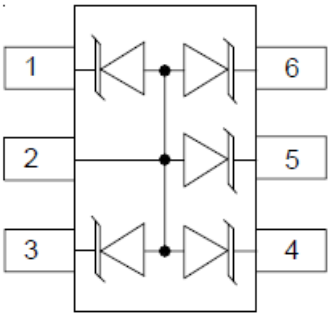
Features

- 30W Peak Pulse Power (8/20μs)
- ESD and Latch-Up Protection
- MatteTinLeadfinish(Pb-Free)
- Protect Five I/O Lines
- Complies with following standards:
  - IEC 61000-4-2 (ESD) immunity test
    - Air discharge: ±15kV
    - Contact discharge: ±8kV
  - IEC61000-4-5 (Lightning) 2A (8/20μs)
- RoHS Compliant

Dimensions SOT-363



Pin Configuration



Applications

- Peripherals
- Audio Players
- Digital Cameras
- Cordless Phones
- Portable Instrumentation
- Notebooks and Handhelds
- Personal Digital Assistants(PDA's)
- Cellular Handsets and Accessories

Mechanical Characteristics

- Package: SOT-363
- Lead Finish: Lead Free
- UL Flammability Classification Rating 94V-0
- Quantity Per Reel:3,000pcs
- Reel Size:7 inch
- Device Marking: 5C

Absolute Maximum Ratings(Tamb=25°C unless otherwise specified)

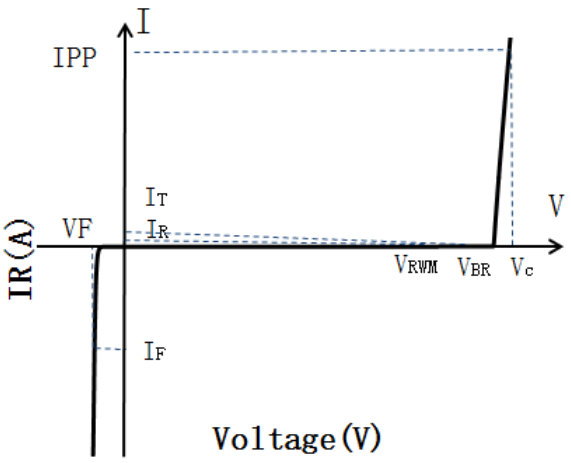
Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20μs)	Ppp	30	W
ESD per IEC 61000−4−2 (Air)	V_{ESD}	±15	KV
ESD per IEC 61000−4−2 (Contact)		± 8	
Operating Temperature Range	T_J	-55 to +125	℃
Storage Temperature Range	T_{STJ}	-55 to +150	℃

Electrical Characteristics(TA=25°C unless otherwise specified)

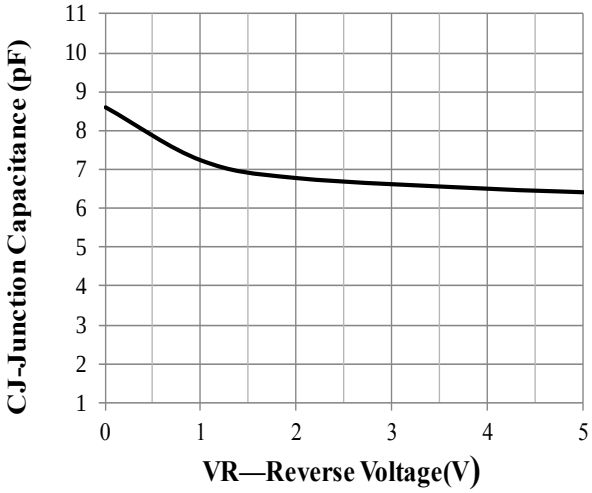
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Working Voltage	V_{RWM}				3.3	V
Breakdown Voltage	V_{BR}	I_T = 1mA	5	5.6	6.2	V
Reverse Leakage Current	I_R	V_{RWM} = 3.3V			1	μA
Clamping Voltage	V_C	I_{PP} = 1A (8 x 20 μs pulse)		7.5		V
Clamping Voltage	V_C	I_{PP} = 2A (8 x 20 μs pulse)		9.5	13	V
Junction Capacitance	C_J	V_R = 0V, f = 1MHz		8	20	pF

Electrical Parameters(TA=25°C unless otherwise specified)

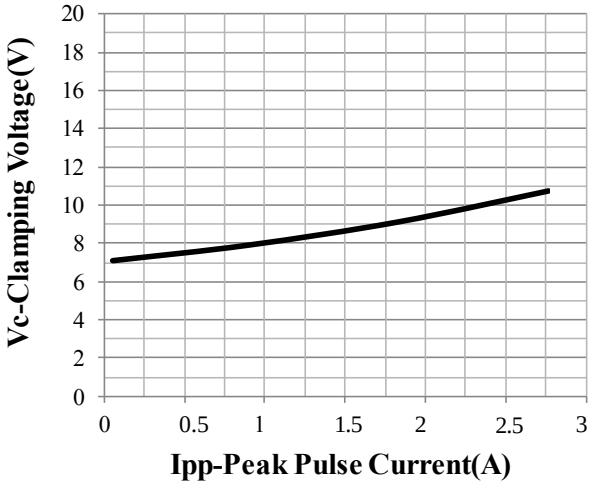
Symbol	Parameter
IT	Test Current
IPP	Maximum Reverse Peak Pulse Current
Vc	Clamping Voltage @Ic



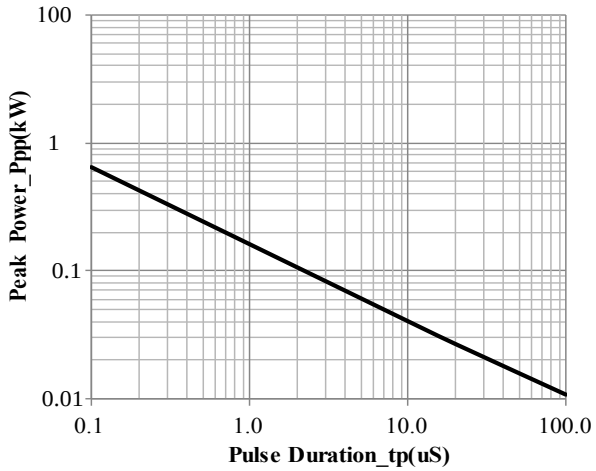
Typical Performance Characteristics(TA=25°C unless otherwise specified)



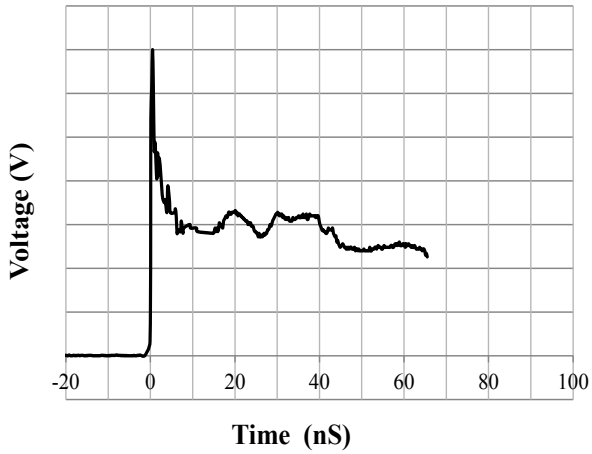
Junction Capacitance vs. Reverse Voltage



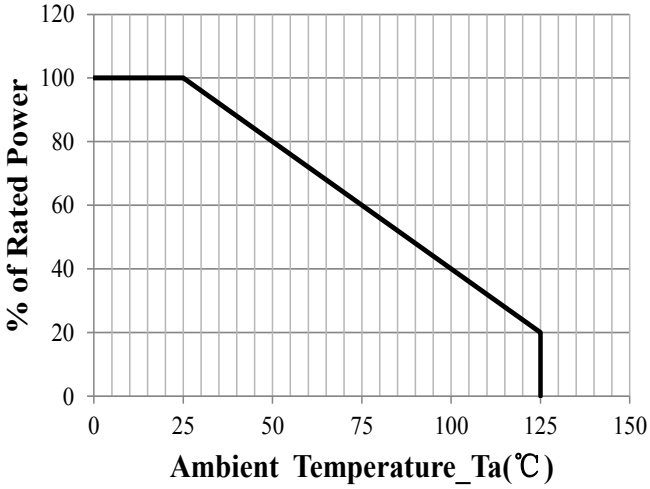
Clamping Voltage vs. Peak Pulse Current



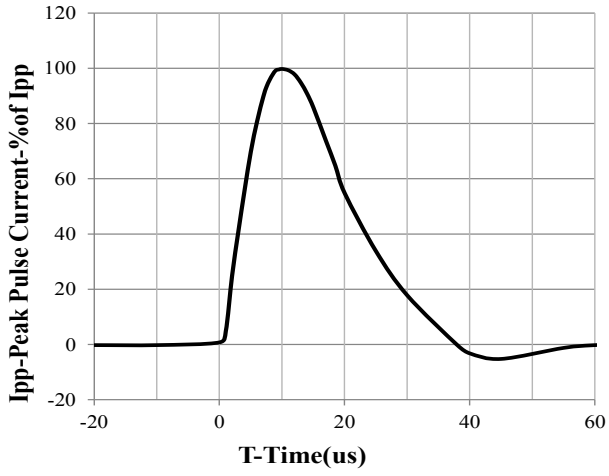
Peak Pulse Power vs. Pulse Time



IEC61000−4−2 Pulse Waveform

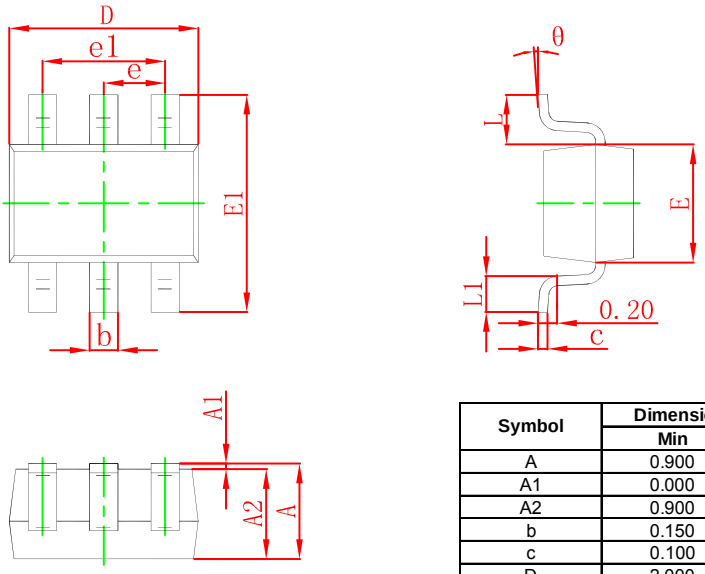


Power Derating Curve



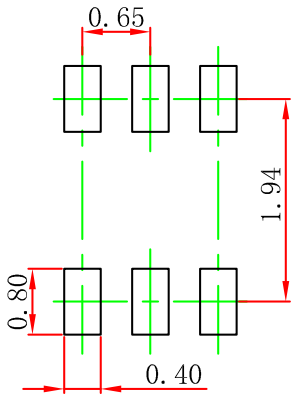
8 X 20us Pulse Waveform

SOT-363 Package Outline Drawing



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.100	0.035	0.043
A1	0.000	0.100	0.000	0.004
A2	0.900	1.000	0.035	0.039
b	0.150	0.350	0.006	0.014
c	0.100	0.150	0.004	0.006
D	2.000	2.200	0.079	0.087
E	1.150	1.350	0.045	0.053
E1	2.150	2.400	0.085	0.094
e	0.650 TYP		0.026 TYP	
e1	1.200	1.400	0.047	0.055
L	0.525 REF		0.021 REF	
L1	0.260	0.460	0.010	0.018
θ	0°	8°	0°	8°

Suggested Land Pattern



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

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