NEW PRODUCT

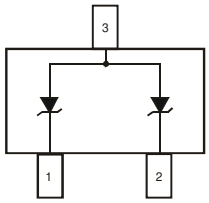
Features

- 260 Watts Peak Pulse Power (tp = 8x20μs)
- 61000-4-2 (ESD): Air – 30kV, Contact – 30kV
- MIL-STD 883(ESD), HBM – 10kV
- Low Reverse Leakage Current, I_R < 1μA
- Unidirectional Configuration
- **Lead Free/RoHS Compliant (Note 3)**
- **"Green" Device (Note 4)**
- **Qualified to AEC-Q101 Standards for High Reliability**

Mechanical Data

- Case: SOT-23
- Case Material: Molded Plastic, "Green" Molding Compound, Note 3. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Matte Tin Finish annealed over Alloy 42 leadframe (Lead Free Plating). Solderable per MIL-STD-202, Method 208
- Ordering Information: See Page 2
- Marking Information: See Page 2
- Weight: 0.0089 grams (approximate)

Top View



Device Schematic

Thermal Characteristics – Total Device

Characteristic		Symbol	Value	Unit
Peak Pulse Power (tp = 8x20μs)	(Note 6) T_A = 25°C	P_{pk}	260	W
Thermal Resistance, Junction to Ambient	(Note 6) T_A = 25°C	$R_{\theta JA}$	417	°C/W
Operating and Storage Temperature Range		T_J, T_{STG}	-65 to +150	°C

Electrical Characteristics @T_A = 25°C unless otherwise specified

Reverse Standoff Voltage	Breakdown Voltage V_{BR} @ I_T		Test Current	Max. Reverse Leakage @ V_{RWM} (Note 5)	Max. Clamping Voltage @ I_{pp} = 1A (Note 2)	Max. Clamping Voltage V_C @ I_{PP} (Note 2)		Typical Total Capacitance C_T (Note 1)	Maximum Total Capacitance C_T (Note 1)
V_{RWM} (V)	Min (V)	Max (V)	I_T (mA)	I_R (μA)	V_C (V)	V_C (V)	I_{PP} (A)	(pF)	(pF)
5.2	6.4	7.2	5.0	1	9	20	15	165	200

Notes:
1. V_R = 0V, f = 1MHz.
2. Clamping voltage value is based on an 8x20 μs peak pulse current (I_{pp}) waveform.
3. No purposefully added lead.
4. Diodes Inc.'s "Green" policy can be found on our website at http://www.diodes.com/products/lead_free/index.php.
5. Short duration pulse test used to minimize self-heating effect.
6. Device mounted on FR-4 PC board with suggested pad layout, which can be found on our website at http://www.diodes.com/datasheets/ap02001.pdf.
7. Measured across either pin 1 and pin 3 or pin 2 and pin 3.

NEW PRODUCT

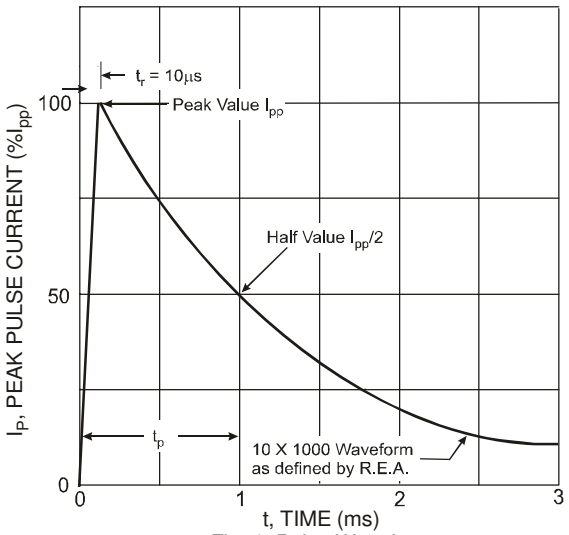


Fig. 1 Pulse Waveform

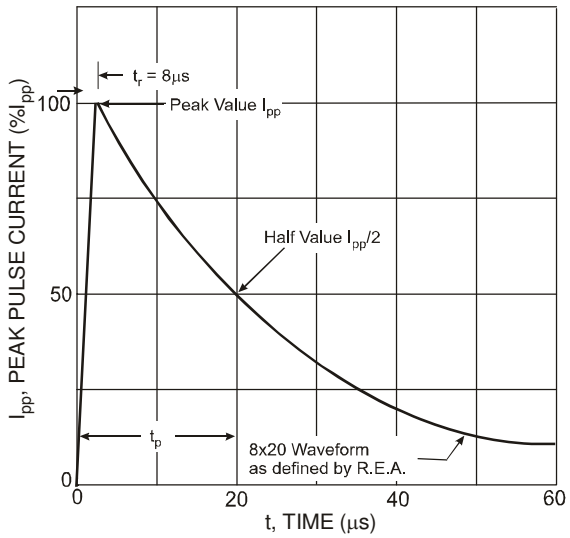


Fig. 2 Pulse Waveform

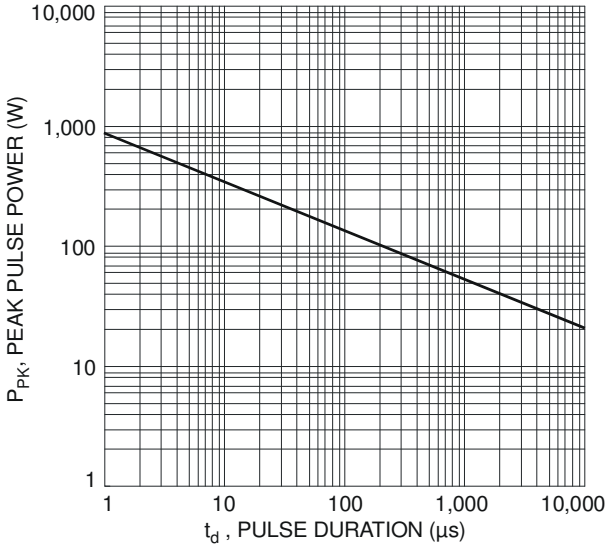


Fig. 3 Max. Peak Pulse Power vs. Pulse Duration

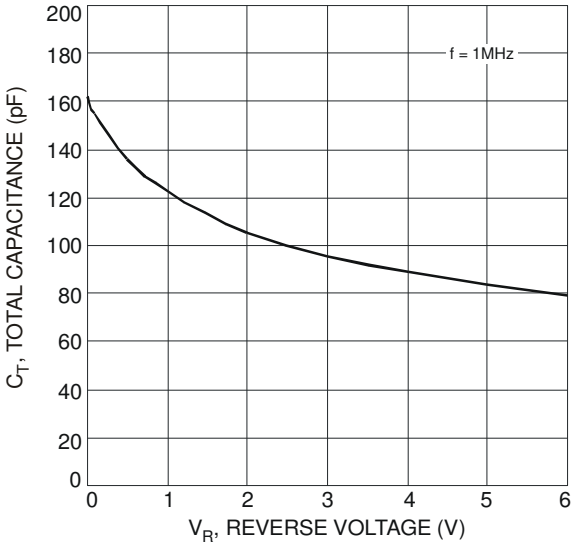


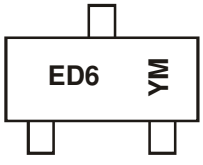
Fig. 4 Typical Total Capacitance vs. Reverse Voltage

Ordering Information (Note 8)

Part Number	Case	Packaging
DESD5V2S2UT-7	SOT-23	3000/Tape & Reel

Notes: 8. For packaging details, go to our website at http://www.diodes.com/datasheets/ap02007.pdf.

Marking Information



ED6 = Product Type Marking Code
YM = Date Code Marking
Y = Year (ex: W = 2009)
M = Month (ex: 9 = September)

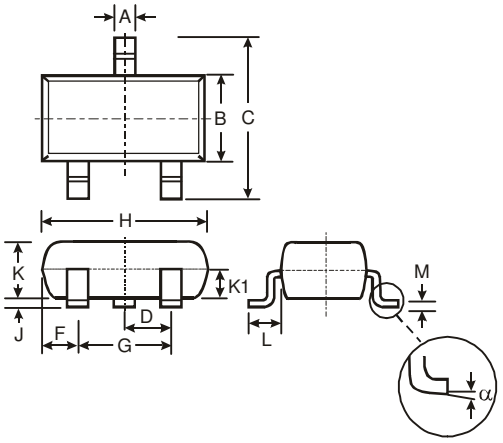
Date Code Key

Year	2009	2010	2011	2012	2013	2014	2015
Code	W	X	Y	Z	A	B	C

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

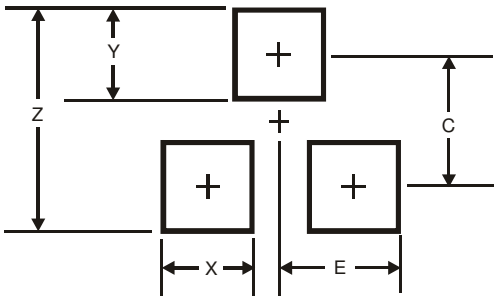
NEW PRODUCT

Package Outline Dimensions



SOT-23			
Dim	**Min**	**Max**	**Typ**
A	0.37	0.51	0.40
B	1.20	1.40	1.30
C	2.30	2.50	2.40
D	0.89	1.03	0.915
F	0.45	0.60	0.535
G	1.78	2.05	1.83
H	2.80	3.00	2.90
J	0.013	0.10	0.05
K	0.903	1.10	1.00
K1	-	-	0.400
L	0.45	0.61	0.55
M	0.085	0.18	0.11
α	0°	8°	-
All Dimensions in mm			

Suggested Pad Layout



Dimensions	Value (in mm)
Z	2.9
X	0.8
Y	0.9
C	2.0
E	1.35

NEW PRODUCT

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2. support or sustain life and whose failure to perform when properly used in accordance with instructions for use provided in the labeling can be reasonably expected to result in significant injury to the user.

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