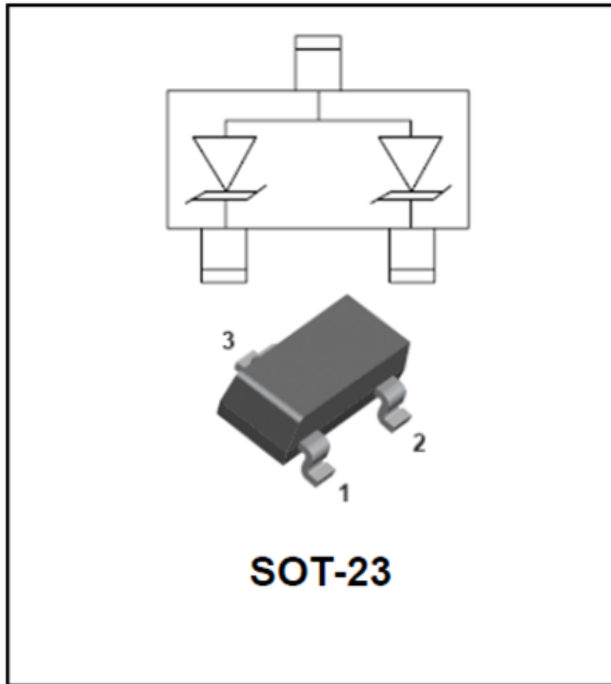


2-Line un-directional TVS Diode Array

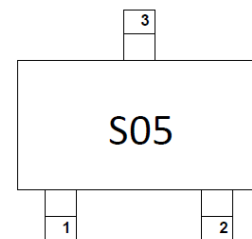


Features

- 320W peak pulse power (8/20 μ s)
- Protects two un-directional lines
- Ultra low leakage: nA level
- Operating voltage: 5V
- Low clamping voltage
- RoHS Compliant

Mechanical Characteristics

- Package: SOT-23
- Lead Finish: Matte Tin
- Case Material: "Green" Molding Compound.
- Moisture Sensitivity: Level 3 per J-STD-020
- Marking Information: See Below



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

PARAMETER	SYMBOL	VALUE	UNIT
Operating Temperature Range	T _J	-55 to +125	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C
ESD per IEC 61000-4-2 (Air)	V _{ESD}	±30	KV
ESD per IEC 61000-4-2 (Contact)		±30	KV
Peak Pulse Power(8/20 μ s)	P _{PK}	320	W
Peak Pulse Current(8/20 μ s)	I _{PP}	23	A

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse Working Voltage	V _{RWM}	V				5
Reverse Leakage Current	I _R	μ A	V _{RWM} =5V any I/O pin to ground			0.5
Forward Voltage	V _F	V	I _F =10mA	0.2	0.8	1.2
Breakdown Voltage	V _(BR)	V	I _T =1mA	6		
Clamping Voltage	V _C	V	I _{PP} =1A (8 x 20 μ s pulse) any I/O pin to ground			8
Clamping Voltage	V _C	V	I _{PP} =23A (8 x 20 μ s pulse) any I/O pin to ground			14
Junction Capacitance	C _J	pF	V _R =0V, f=1MHz, any I/O pin to ground		160	

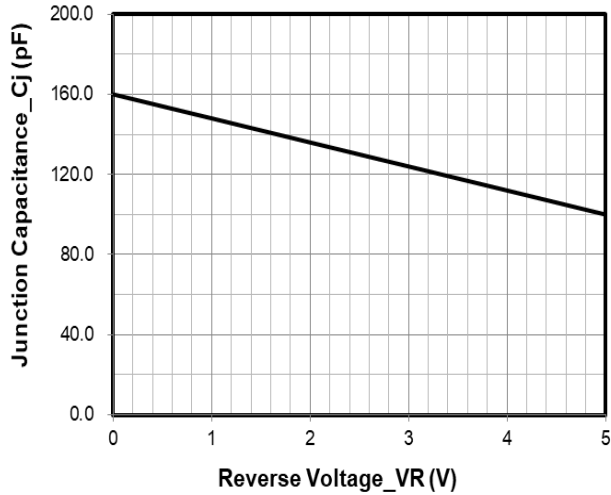


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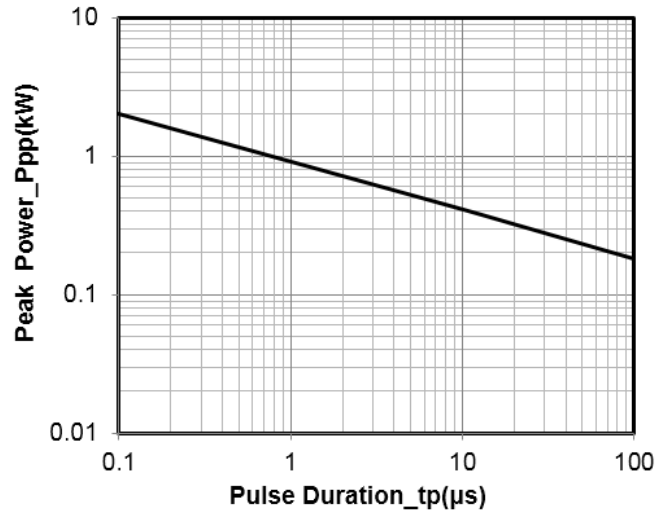
■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	ASM05
Thermal Resistance(Typical)	R _{θJ-A}	°C/W	357
	R _{θJ-C}	°C/W	143

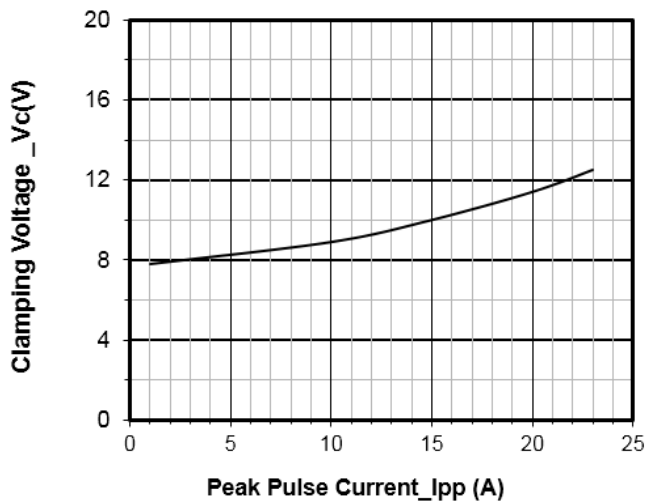
■ Characteristics (Typical)



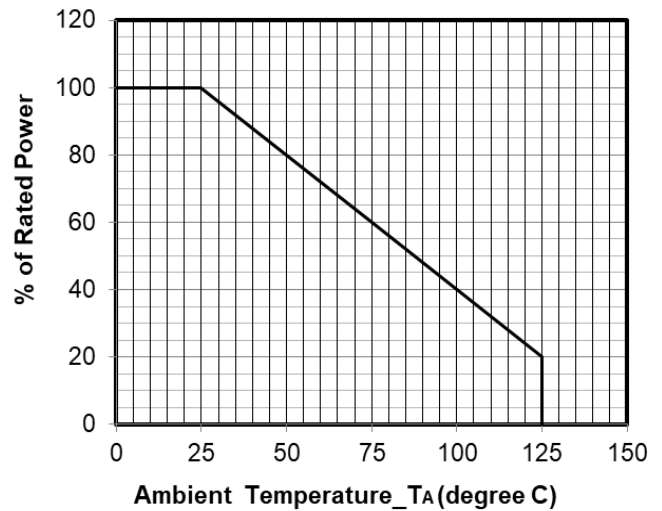
Junction Capacitance vs. Reverse Voltage



Peak Pulse Power vs. Pulse Time



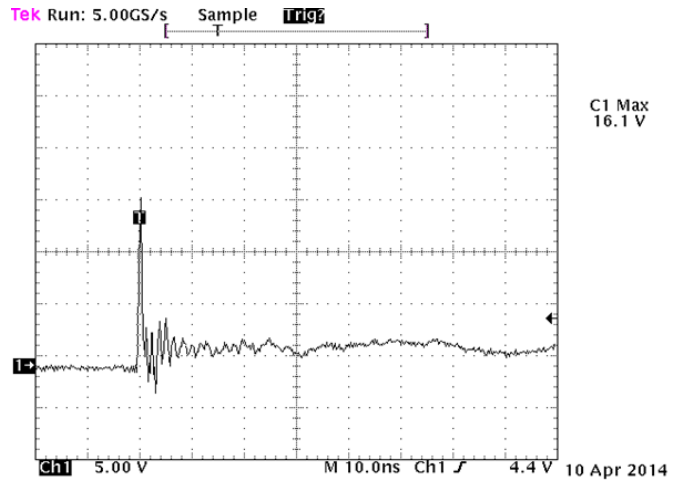
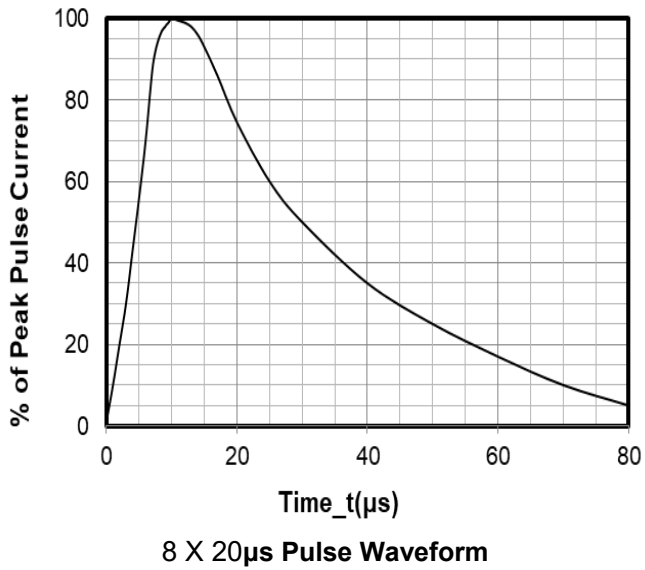
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve

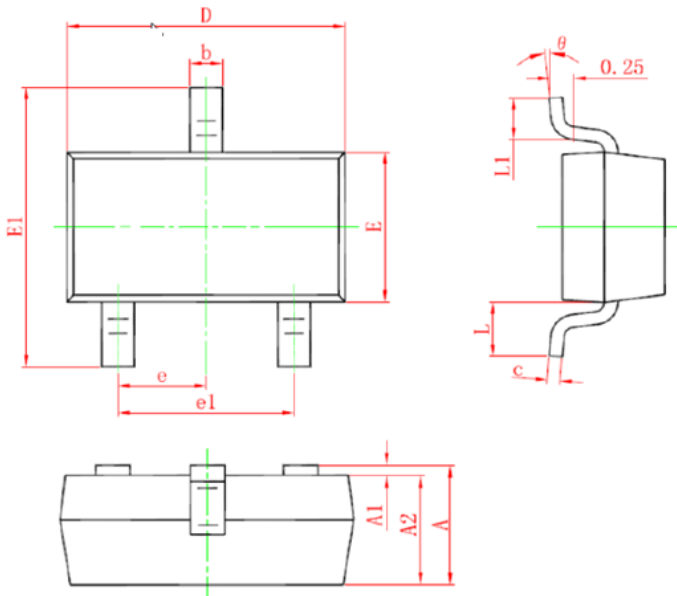


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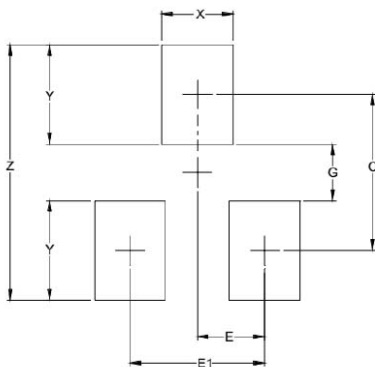
**Note: Data is taken with a 10x attenuator
ESD Clamping Voltage
8 kV Contact per IEC61000-4-2**

■ Outline Dimensions



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.90	--	1.15	0.035	--	0.045
A1	0.00	--	0.10	0.000	--	0.004
A2	0.90	--	1.05	0.035	--	0.041
b	0.30	--	0.50	0.012	--	0.020
c	0.08	--	0.15	0.003	--	0.006
D	2.80	--	3.00	0.110	--	0.118
E	1.20	--	1.40	0.047	--	0.055
E1	2.25	--	2.55	0.089	--	0.100
e	0.95TYP			0.037TYP		
e1	1.80	--	2.00	0.071	--	0.079
L	0.55REF			0.022REF		
L1	0.30	--	0.50	0.012	--	0.020
θ	0°	--	8°	0°	--	8°

■ Soldering Footprint



SYM	DIMENSIONS	
	INCHES	MILLIMETERS
C	.087	2.20
E	.037	0.95
E1	.075	1.90
G	.031	0.80
X	.039	1.00
Y	.055	1.40
Z	.141	3.60



ASM05

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