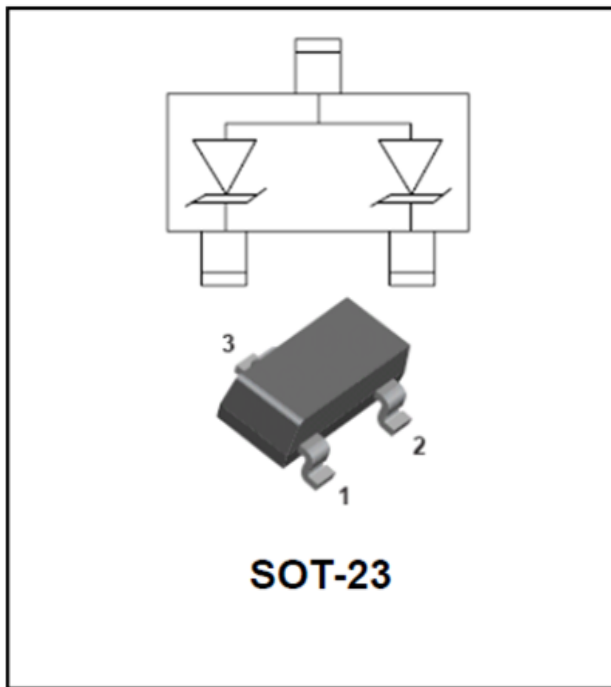


2-Line un-directional TVS Diode Array

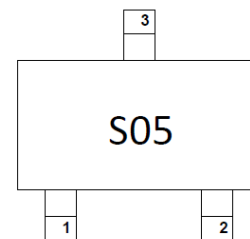


Features

- 320W peak pulse power (8/20μs)
- 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 1 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(8/20μs)	P _{PK}	320	W
Peak Pulse Current(8/20μs)	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	uA	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 20μs pulse) any I/O pin to ground			8
Clamping Voltage	V _C	V	I _{PP} =23A (8 x 20μs 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	

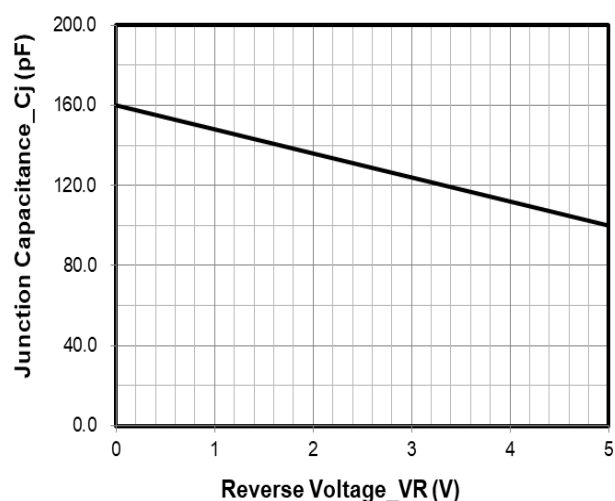
■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

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

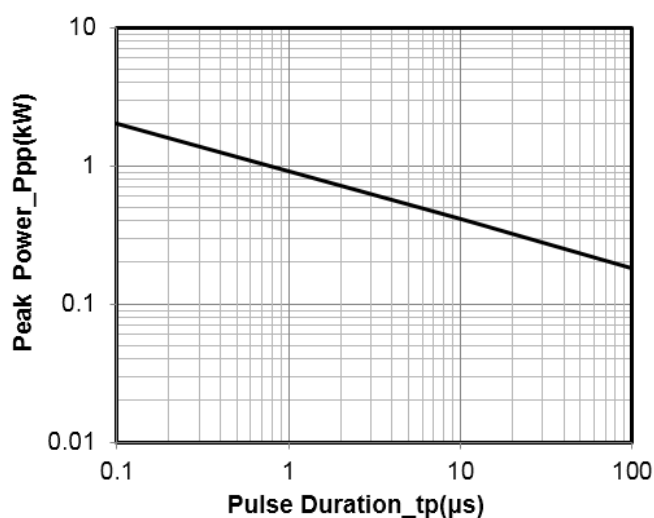
■ Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SM05	F2	Approximate 8	3000	30000	120000	7" reel

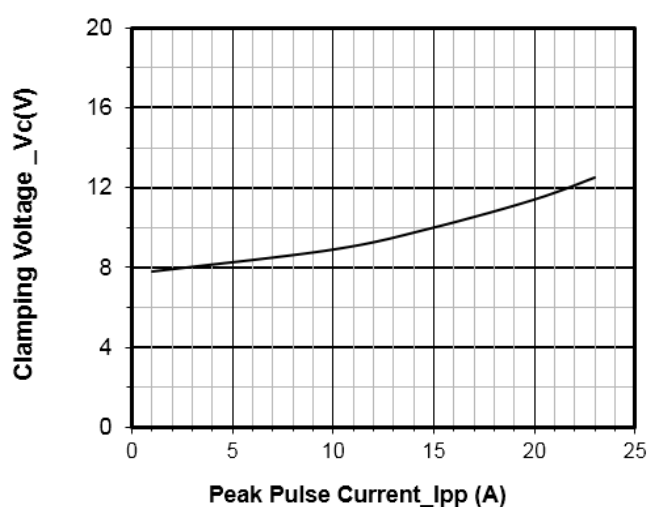
■ Characteristics (Typical)



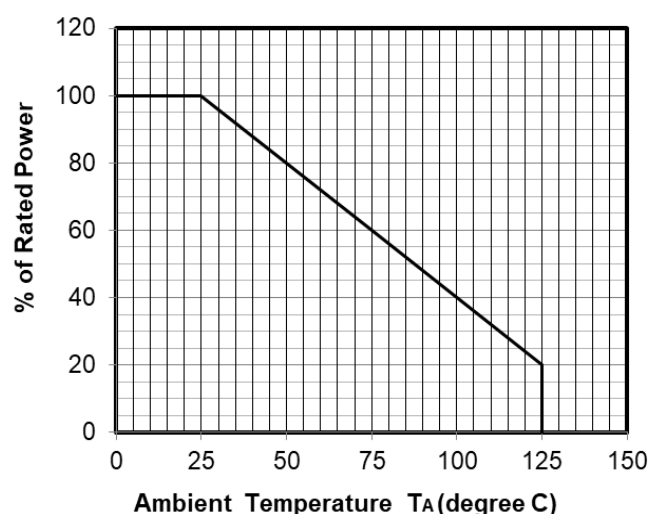
Junction Capacitance vs. Reverse Voltage



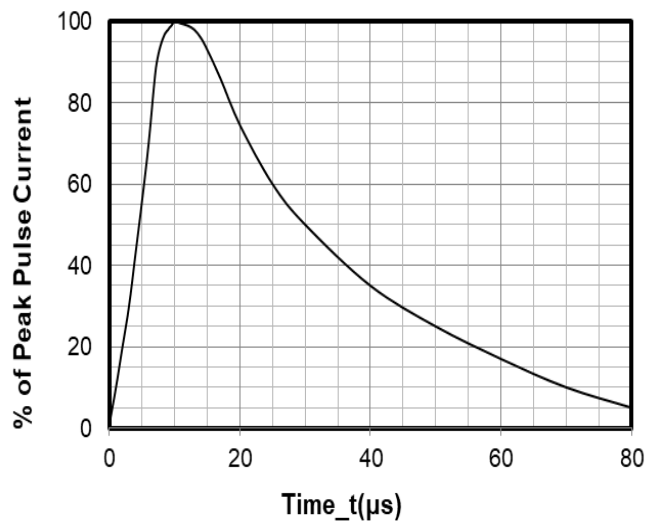
Peak Pulse Power vs. Pulse Time



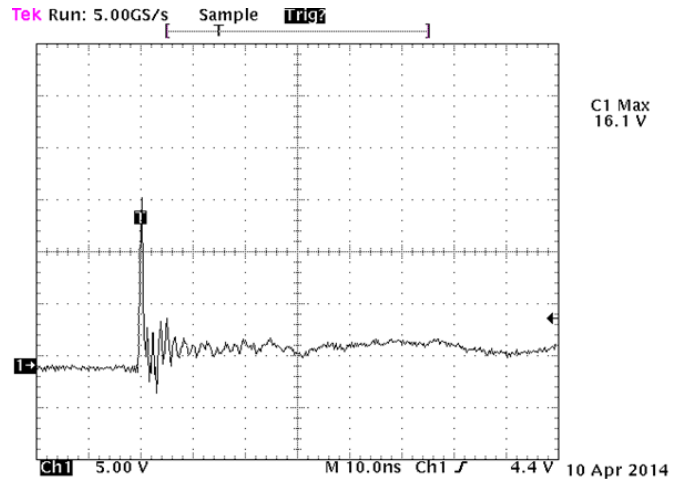
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve

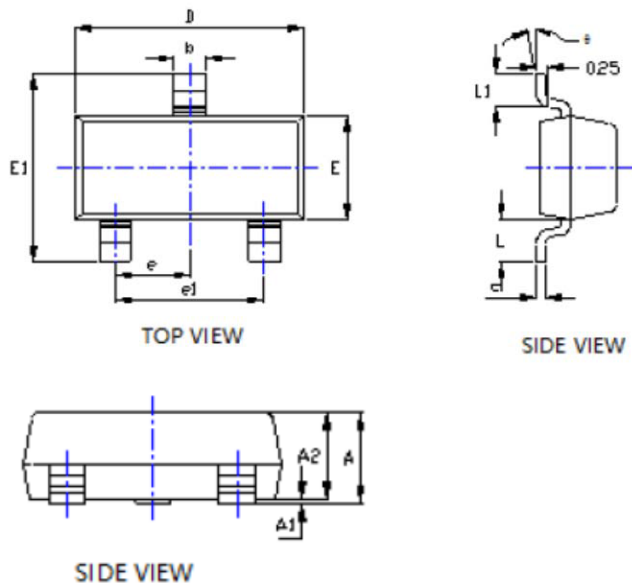


8 X 20μs Pulse Waveform



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

■ Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.020	0.300	0.500
θ	0°	8°	0°	8°

■ Soldering Footprint

