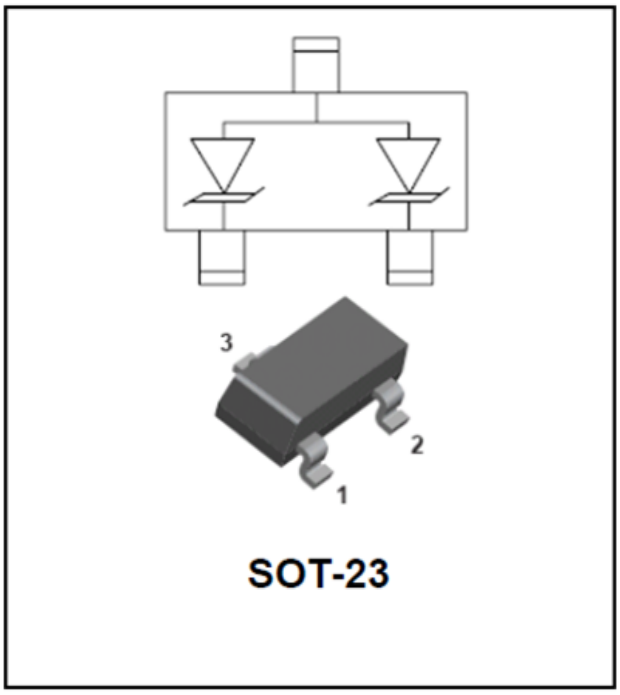
2-Line un-directional TVS Diode Array

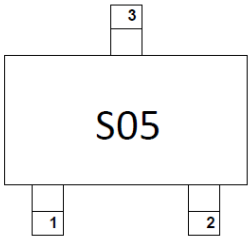


Features

- ●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	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃
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℃ 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	

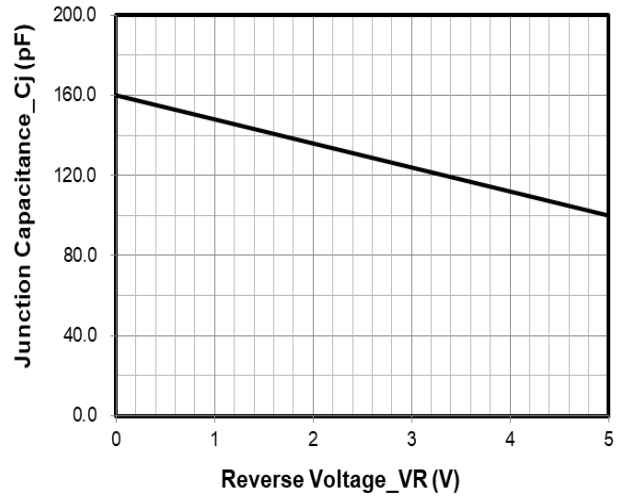
■Thermal Characteristics （T_a=25℃ Unless otherwise specified）

PARAMETER	SYMBOL	UNIT	ASM05
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	357
	$R_{\theta J-C}$	℃/W	143

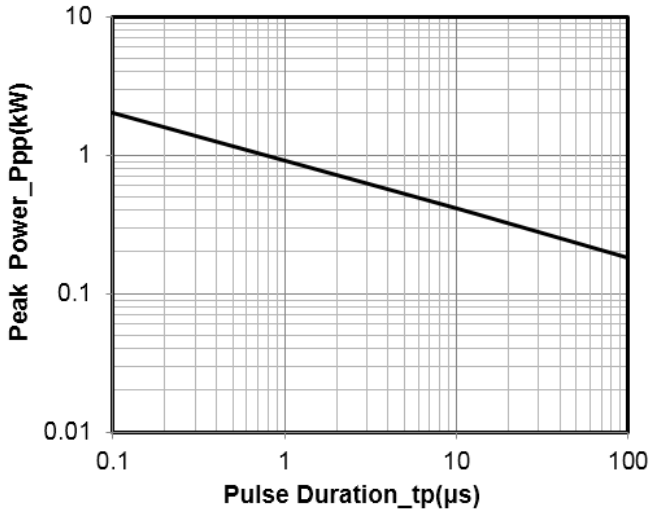
■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(mg)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
ASM05	F2	Approximate 8	3000	30000	120000	7” reel

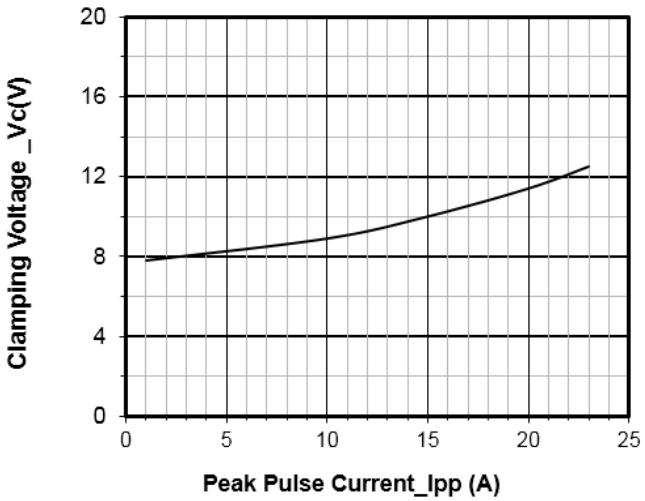
■ Characteristics (Typical)



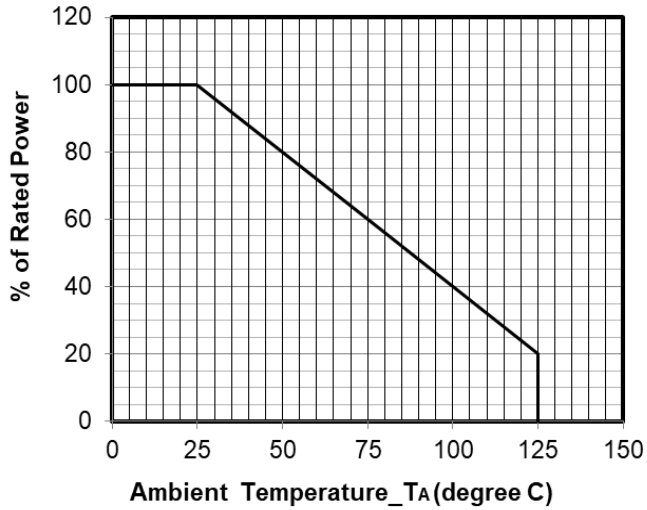
Junction Capacitance vs. Reverse Voltage



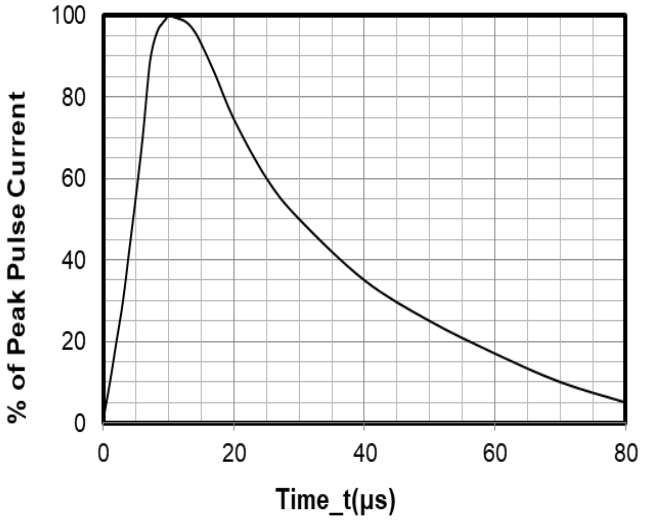
Peak Pulse Power vs. Pulse Time



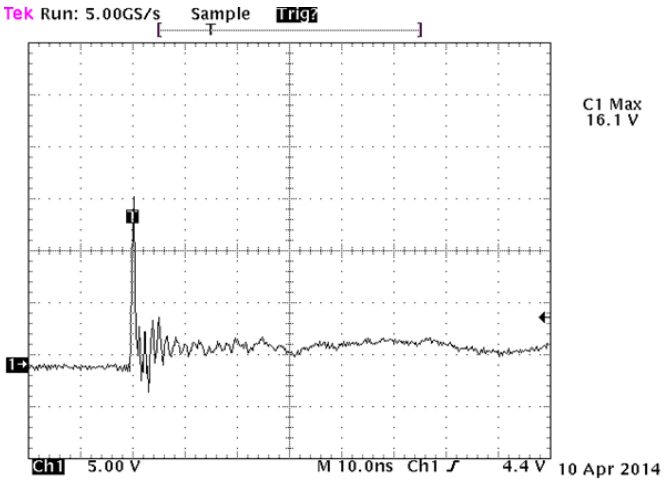
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve

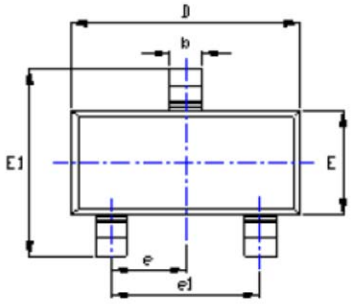


8 X 20**μs Pulse Waveform**

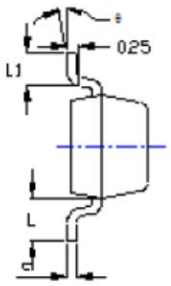


Note：Data is taken with a 10x attenuator
ESD Clamping Voltage
8 kV Contact per IEC61000−4−2

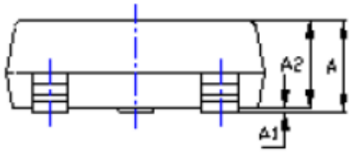
■ Outline Dimensions



TOP VIEW



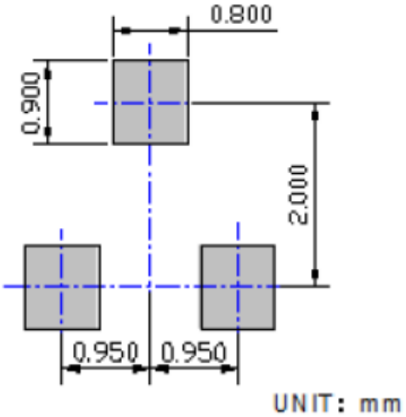
SIDE VIEW



SIDE VIEW

DIMENSIONS				
SYMBOL	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



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