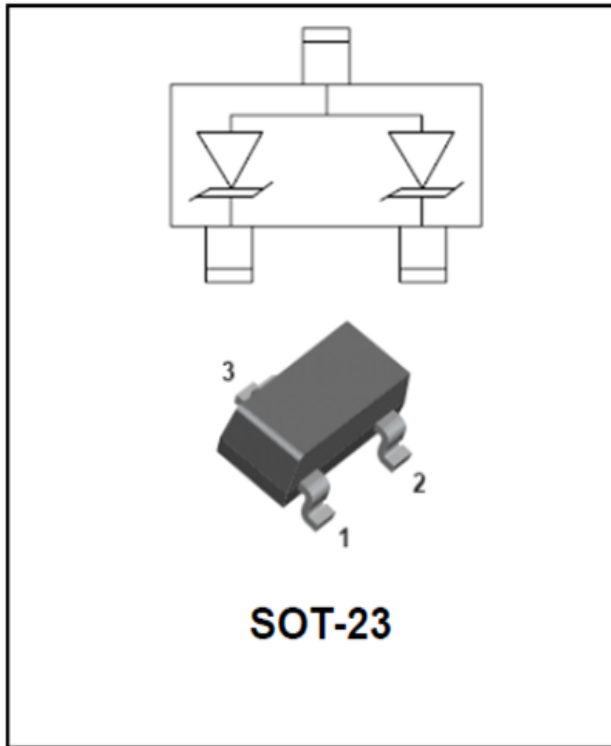


## 2-Line un-directional TVS Diode Array

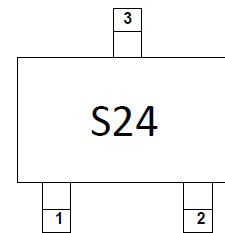


### Features

- 270W peak pulse power (8/20 $\mu$ s)
- Protects two un-directional lines
- Ultra low leakage: nA level
- Operating voltage: 24V
- 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 <sub>J</sub>	-55 to +125	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C
ESD per IEC 61000-4-2 (Air)	V <sub>ESD</sub>	±30	KV
ESD per IEC 61000-4-2 (Contact)		±30	KV
Peak Pulse Power(8/20 $\mu$ s)	P <sub>Pk</sub>	270	W
Peak Pulse Current(8/20 $\mu$ s)	I <sub>PP</sub>	6	A



# ASM24

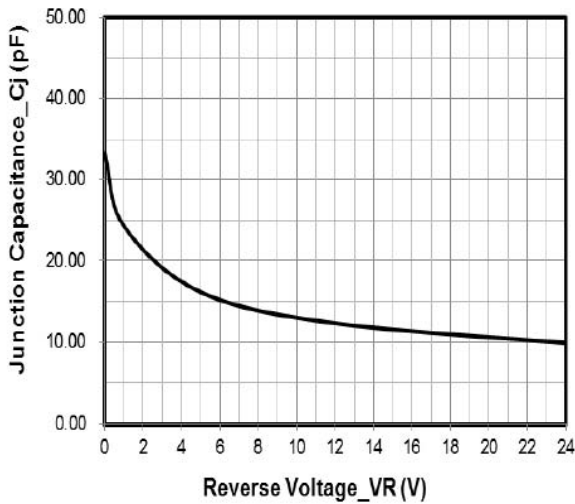
## ■ Electrical Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	Symbol	UNIT	Conditions	Min	Typ	Max
Reverse Working Voltage	V <sub>RWM</sub>	V				24
Reverse Leakage Current	I <sub>R</sub>	uA	V <sub>RWM</sub> =24V			0.2
Breakdown Voltage	V <sub>(BR)</sub>	V	I <sub>T</sub> =1mA	27		
Forward Voltage	V <sub>F</sub>	V	I <sub>F</sub> =10mA		0.8	1.2
Clamping Voltage	V <sub>C</sub>	V	I <sub>PP</sub> =1A (8 x 20μs pulse)			32
Clamping Voltage	V <sub>C</sub>	V	I <sub>PP</sub> =6A(8 x 20μs pulse)			45
Junction Capacitance	C <sub>J</sub>	pF	V <sub>R</sub> =0V,f=1MHz Pin 1 to Pin 3 or Pin 2 to Pin 3			40
Junction Capacitance	C <sub>J</sub>	pF	V <sub>R</sub> =0V,f=1MHz Pin 1 to Pin 2			20

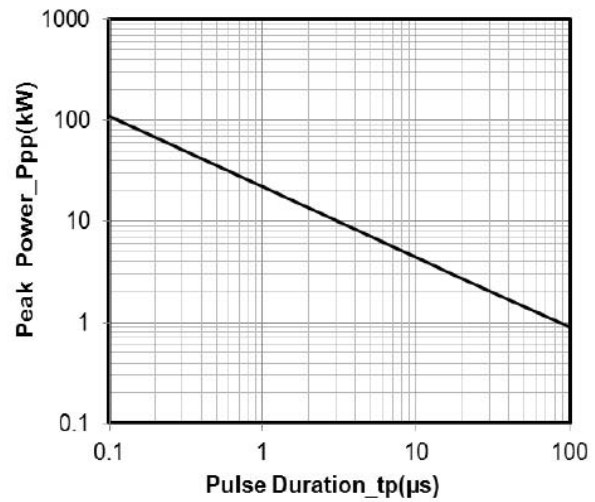
## ■ Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	ASM24
Thermal Resistance(Typical)	R <sub>θJ-A</sub>	°C/W	357
	R <sub>θJ-C</sub>	°C/W	143

## ■ Characteristics (Typical)



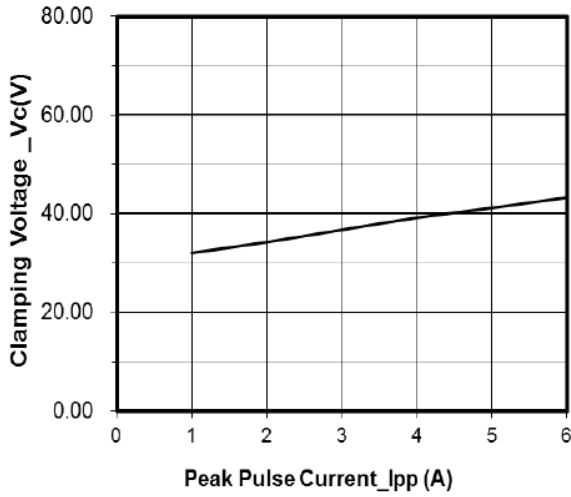
Junction Capacitance vs. Reverse Voltage



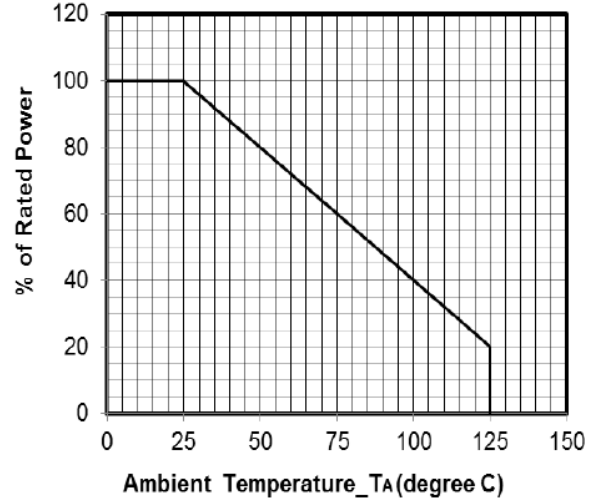
Peak Pulse Power vs. Pulse Time



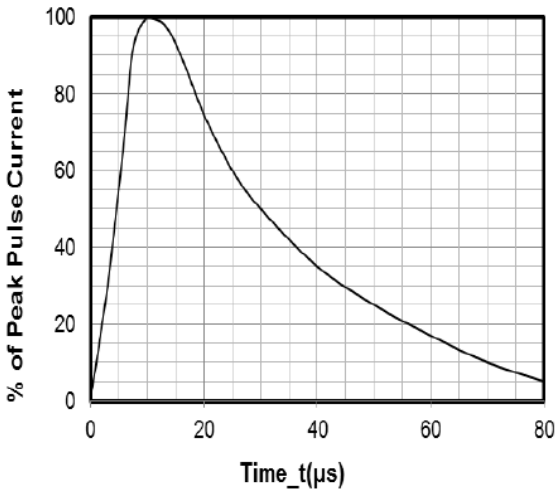
# ASM24



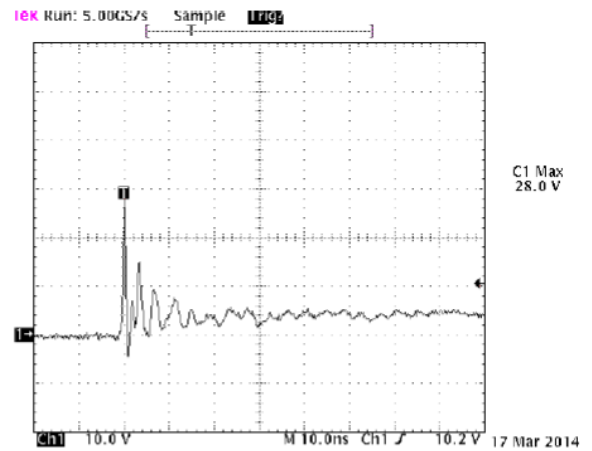
**Clamping Voltage vs. Peak Pulse Current**



**Power Derating Curve**



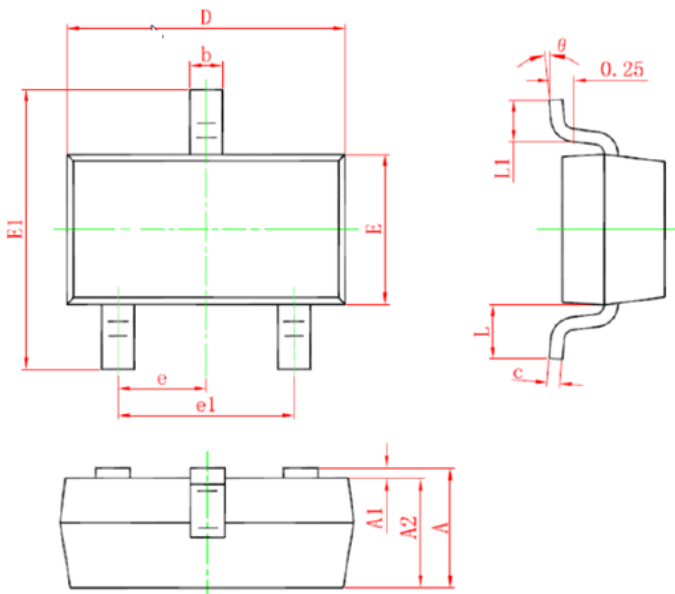
**8 X 20μs Pulse Waveform**



Note: Data is taken with a 10x attenuator

**ESD Clamping Voltage**  
**8 kV Contact per IEC61000-4-2**

## ■ Outline Dimensions

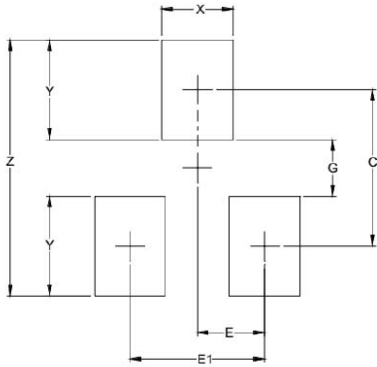


SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.90	--	1.15	0.035	--	0.045
A1	0.00	--	0.10	0.000	--	0.004
A2	0.90	--	1.05	0.035	--	0.041
b	0.30	--	0.50	0.012	--	0.020
c	0.08	--	0.15	0.003	--	0.006
D	2.80	--	3.00	0.110	--	0.118
E	1.20	--	1.40	0.047	--	0.055
E1	2.25	--	2.55	0.089	--	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°



# ASM24

## ■ 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



## ASM24

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