

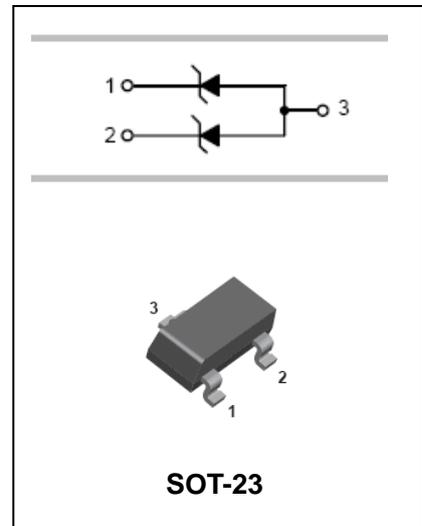
## TVS DIODE ARRAY

## SM15

### FEATURES

- 300 watts peak pulse power.(tp=8/20us)
- Transient protection for data&power lines to  
IEC 61000-4-2(ESD)  $\pm 15\text{Kv}(\text{air})$ ,  $\pm 8\text{kV}(\text{contact})$   
IEC 61000-4-4(EFT)40A(tp=5/50ns)  
IEC 61000-4-5(Lighting)12A(tp=8/20us)
- Protects one bidirectional line or two unidirectional lines.
- Working Voltage: 15V.
- Low clamping voltage.
- Solid-state silicon avalanche technology.

HF



### APPLICATIONS

- Cellular Handsets and Accessories
- Portable Electronics
- Industrial Controls
- Set-Top Box
- Servers, Notebook, and Desktop PC

### ORDERING INFORMATION

Type No.	Marking	Package Code
SM15	M15	SOT-23

### MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Ratings	Units
P <sub>PK</sub>	Peak Pulse Power(tp=8/20us)	300	Watts
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	556	°C/W
T <sub>L</sub>	Lead Soldering Temperature	260(10sec.)	°C
T <sub>J</sub>	Operating Temperature	-55 to +125	°C
T <sub>STG</sub>	Storage Temperature	-55 to +150	°C

TVS DIODE ARRAY

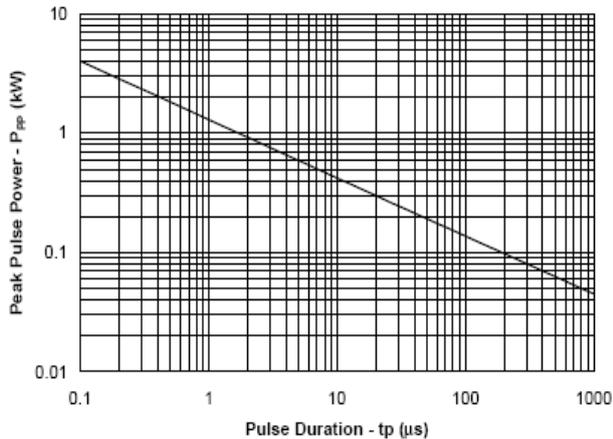
SM15

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

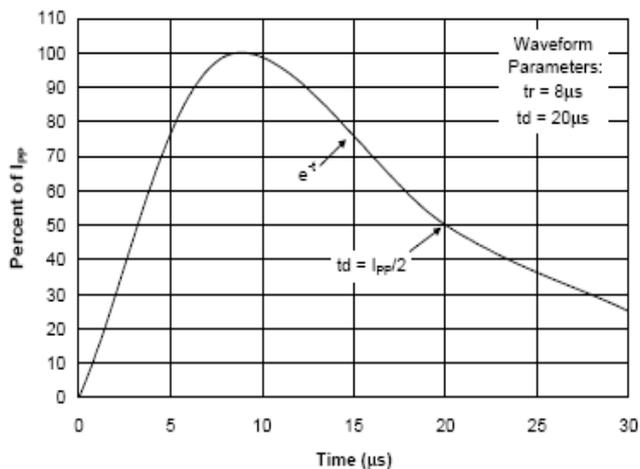
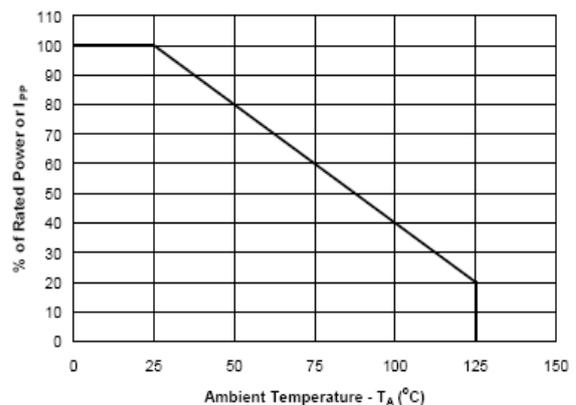
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Reverse Stand-Off Voltage	$V_{RWM}$				15	V
Reverse Breakdown Voltage	$V_{BR}$	$I_t=1mA$	16.7			V
Reverse Leakage Current	$I_R$	$V_{RWM}=15V, T=25^\circ C$			1	$\mu A$
Clamping Voltage	$V_C$	$I_{pp}=1A, t_p=8/20\mu s$			24	V
Maximun Peak Pulse Current	$I_{pp}$	$t_p=8/20\mu s$			10	A
Junction Capacitance	$C_j$	Pin 1 to 2 $V_R=0V, f=1MHz$			75	pF
Junction Capacitance	$C_j$	Pin 1 to 3 and Pin 2 to 3 $V_R=0V, f=1MHz$			100	pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Non-Repetitive Peak Pulse Power vs. Pulse Time



Power Derating Curve



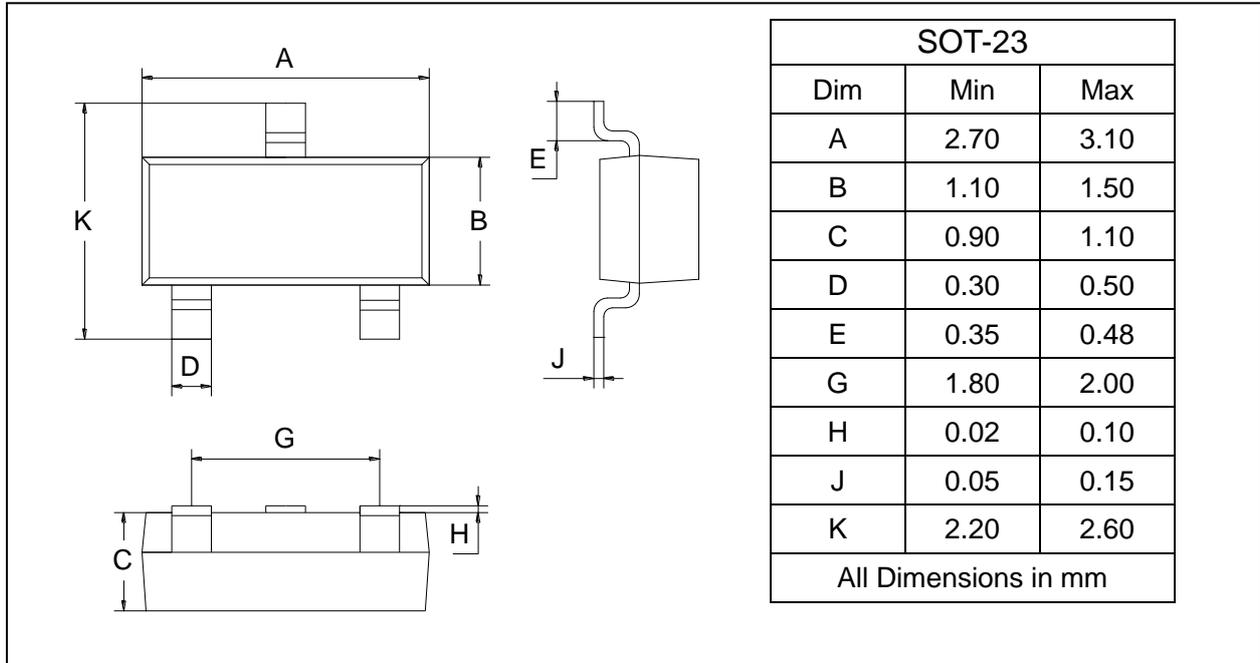
**TVS DIODE ARRAY**

**SM15**

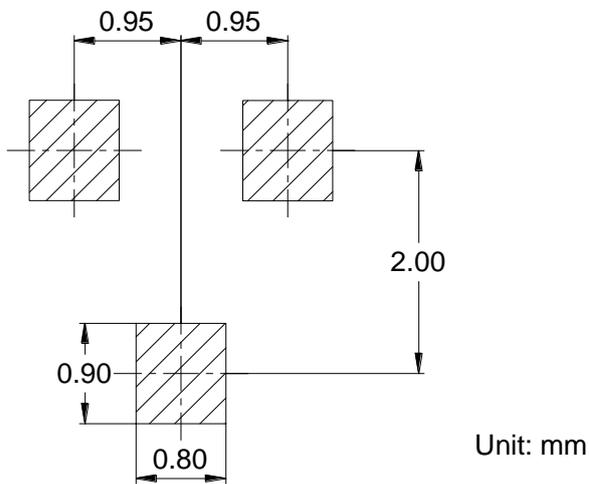
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-23



**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

Device	Package	Shipping
SM15	SOT-23	3000 pcs / Tape & Reel