TVS DIODE ARRAY **SM12**

FEATURES

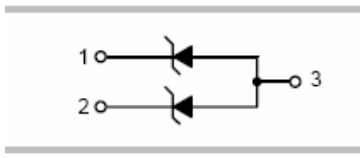
Lead-free

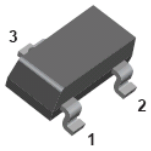
- 300 watts peak pulse power.(tp=8/20us)
- Transient protection for data&power lines to

  IEC 61000-4-2(ESD)15Kv(air),8kV(contanct)

  IEC 61000-4-4(EFT)40A(tp=5/50ns)

  IEC 61000-4-5(Lighting)12A(tp=1.2/50us)
- Protects one bidirectional line or two unidirectional lines.
- Working Voltage: 12V.
- Low clamping voltage.
- Solid-state silicon avalanche technology.





SOT-23

APPLICATIONS

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

ORDERING INFORMATION

Type No.	Marking	Package Code
SM12	M12	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

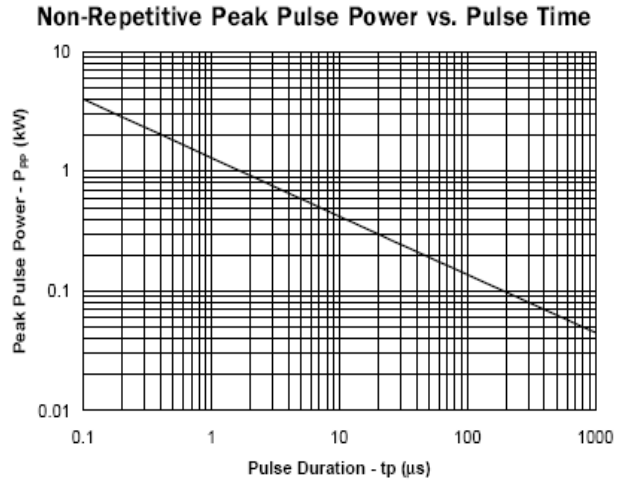
Symbol	**Parameter**	**Ratings**	**Units**
P_{PK}	Peak Pulse Power(tp=8/20us)	300	Watts
θ_{JA}	Thermal Resistance,Junction to Ambient	556	℃/W
T_L	Lead Soldering Temperature	260(10sec.)	℃
T_J	Operating Temperature	-55 to +125	℃
T_{STG}	Storage Temperature	-55 to +150	℃

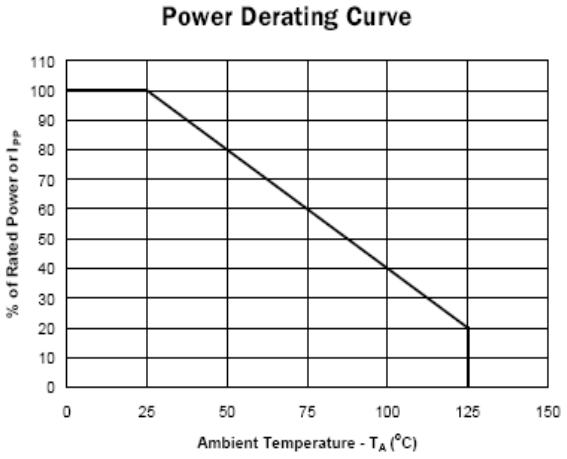
TVS DIODE ARRAY **SM12**

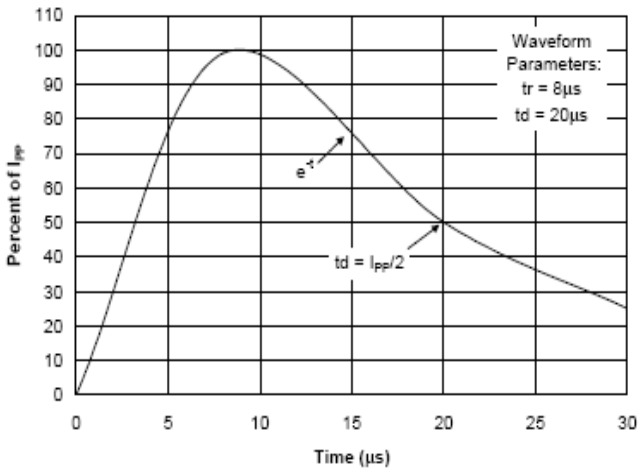
ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Reverse Stand-Off Voltage	V_{RWM}				12	V
Reverse Breakdown Voltage	V_{BR}	I_t=1mA	13.3			V
Reverse Leakage Current	I_R	V_{RWM}=12V,T=25℃			1	uA
Clamping Voltage	V_C	I_{PP}=1A,tp=8/20us			19	V
Maximun Peak Pulse Current	I_{pp}	tp=8/20us			12	A
Junction Capacitance	C_j	Pin 1 to 2 V_R=0V,f=1MHZ			120	pF
Junction Capacitance	C_j	Pin 1 to 3 and Pin 2 to 3 V_R=0V,f=1MHZ			150	pF

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified



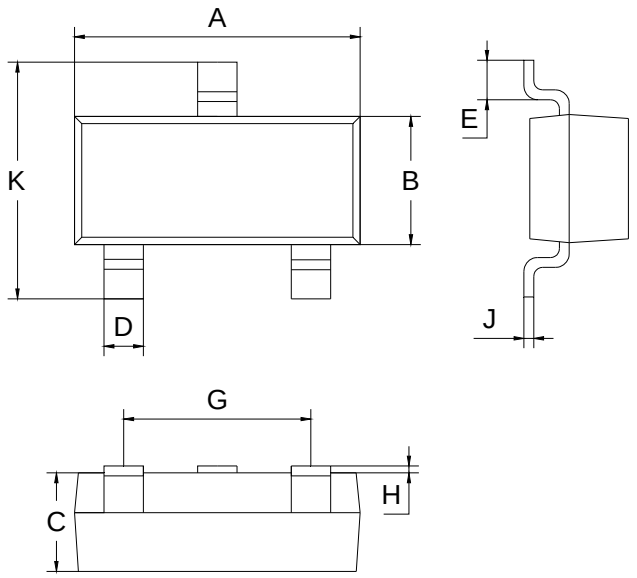




TVS DIODE ARRAY **SM12**

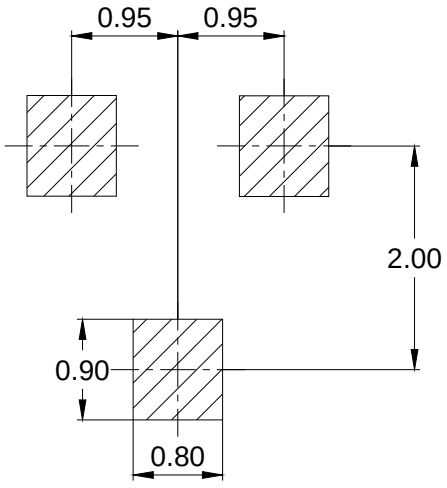
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
SM12	SOT-23	3000/Tape&Reel