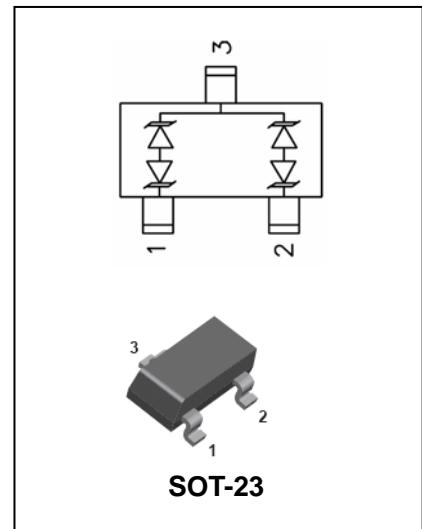


TVS DIODE ARRAY

SM712

FEATURES

- 400 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=8/20us)
- Protects tow +12V to -7V lines
- Low clamping voltage.
- Solid-state silicon avalanche technology.



APPLICATIONS

- Protection of RS-485 transceivers with extended common-mode range.
- Security systems
- Automatic Teller Machines
- HFC systems
- Networks

ORDERING INFORMATION

Type No.	Marking	Package Code
SM712	712	SOT-23

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Ratings	Units
P _{PK}	Peak Pulse Power(tp=8/20us)	400	Watts
I _{PP}	Peak Pulse Current(tp=8/20us)	17	A
T _L	Lead Soldering Temperature	260(10sec.)	°C
T _J	Operating Temperature	-55 to +125	°C
T _{STG}	Storage Temperature	-55 to +150	°C



TVS DIODE ARRAY

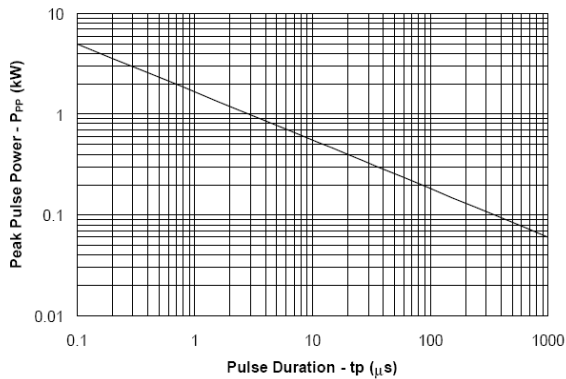
SM712

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

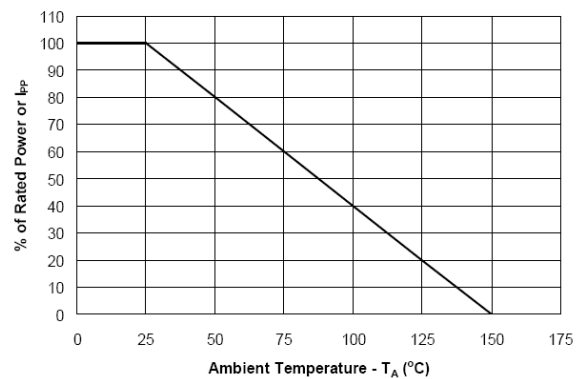
Parameter	Symbol	Test conditions	Pins 1 to 3 and 2 to 3(12V TVS)			Pins 3 to 1 and 3 to 2(7V TVS)			UNIT
			MIN	TYP	MAX	MIN	TYP	MAX	
Reverse Stand-Off Voltage	V_{RWM}	Pins 3 to 1 and 2 to 1			12			7	V
Reverse Breakdown Voltage	V_{BR}	$I_t=1mA$	13.2			7.5			V
Reverse Leakage Current	I_R	$V_R=V_{RWM}$			1			20	nA
Clamping Voltage	V_C	$I_{PP}=5A, tp=8/20\mu s$			20			10	V
Clamping Voltage	V_C	$I_{PP}=17A, tp=8/20\mu s$			26			12	V
Junction Capacitance	C_j	$V_R=0V, f=1MHz$			75			75	pF
		$V_R=V_{RWM}, f=1MHz$		45			45		pF

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

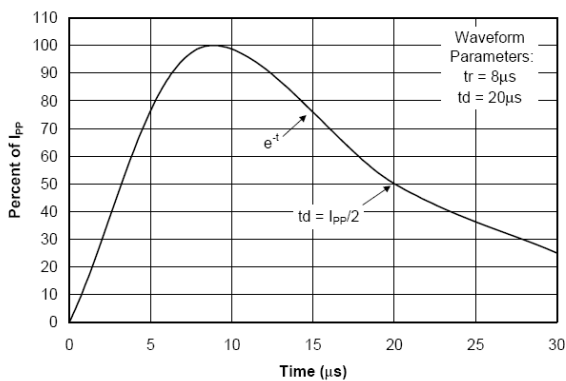
Non-Repetitive Peak Pulse Power vs. Pulse Time



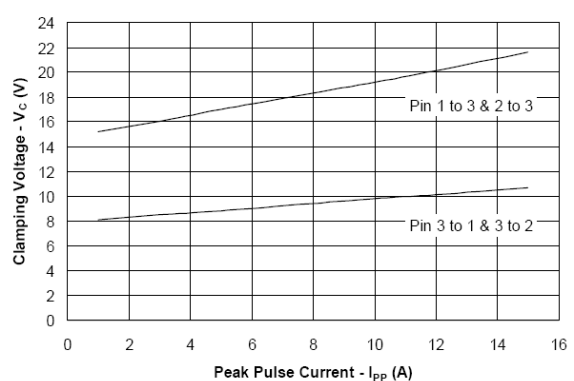
Power Derating Curve



Pulse Waveform



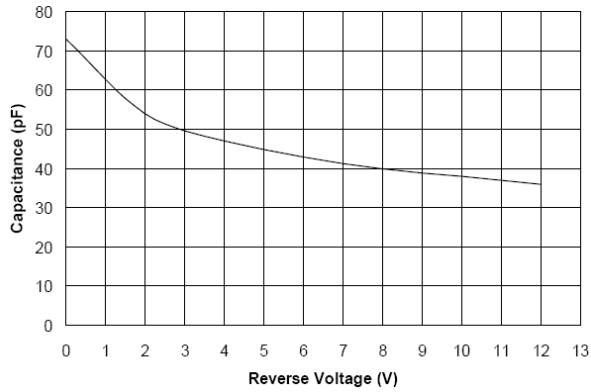
Clamping Voltage vs. Peak Pulse Current



TVS DIODE ARRAY

SM712

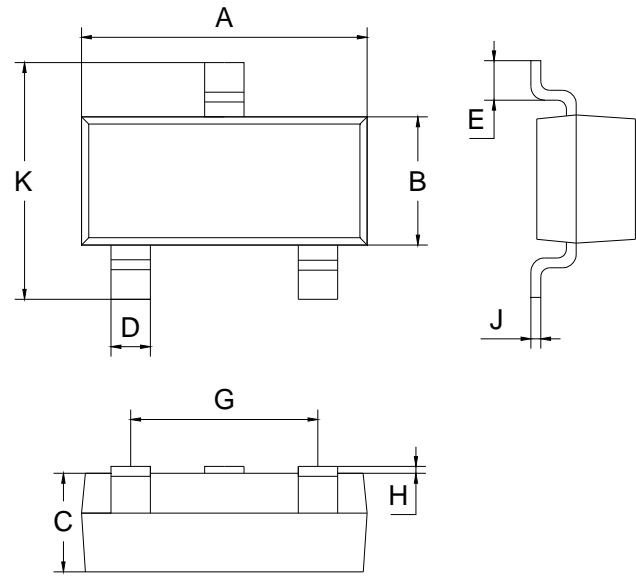
Capacitance vs. Reverse Voltage



PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



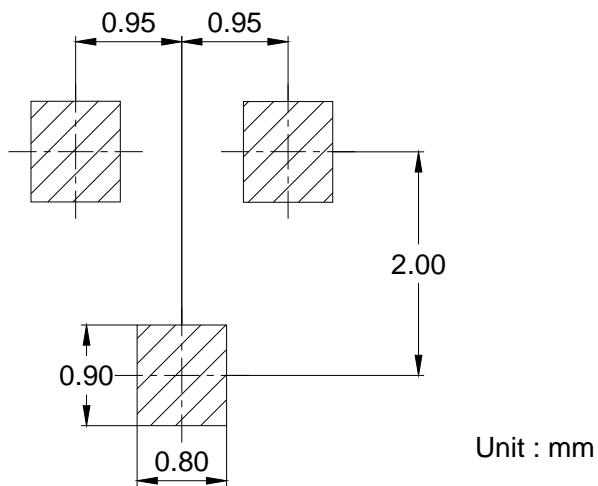
SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		



TVS DIODE ARRAY

SM712

SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
SM712	SOT-23	3000/Tape&Reel