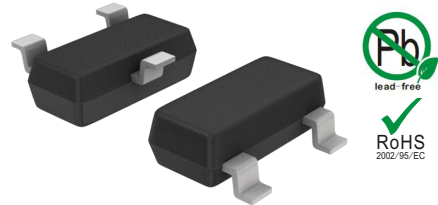


Features

- 400 Watts peak pulse power ($t_p = 8/20\mu s$)
- Bidirectional configurations
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance ($C_j = 60$ pF typ.)



IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 ± 8 kV contact ± 15 kV air
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 12A (8/20 μs)

SOT-23

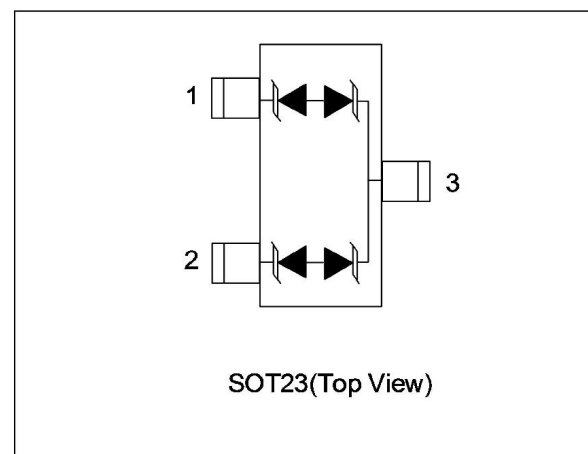
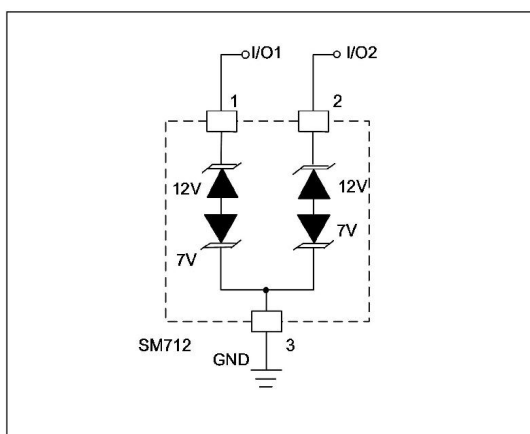
Applications

- Dataline
- Automatic Teller Machines
- Net works
- Power line

Mechanical Characteristics

- SOT-23 package
- Molding compound flammability rating:
UL 94V-0
- Packaging: Tape and Reel
- RoHS/WEEE Compliant

Schematic & PIN Configuration



Absolute Maximum Rating

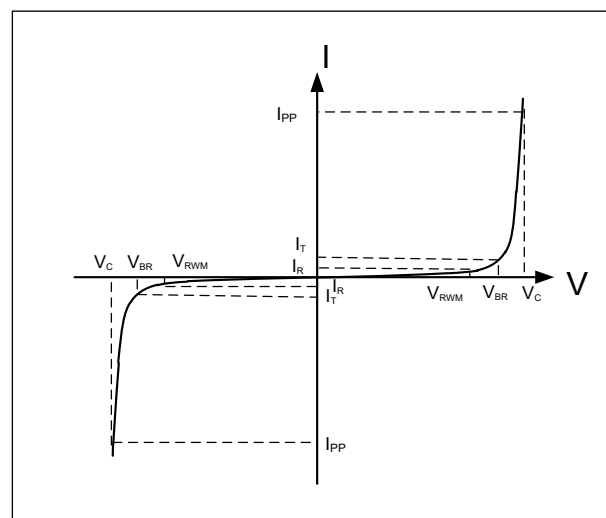
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	400	Watts
Peak Pulse Current ($t_p = 8/20\mu s$) (note1)	I_{pp}	12	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V_{ESD}	15 8	kV
Lead Soldering Temperature	T_L	260(10seconds)	°C
Junction Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{stg}	-55 to + 125	°C

Electrical Characteristics

Parameter	Symbol	Conditions	Pins 1 to 3 and 2 to 3 (12V TVS)			Pins 3 to 1 and 3 to 2 (7V TVS)			Units
			Min	Typical	Max	Min	Typical	Max	
Reverse Stand-Off Voltage	V_{RWM}				12			7	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	13.3			7.5			V
Reverse Leakage Current	I_R	$V_R=V_{RWM}$			1			1	μA
Clamping Voltage	V_C	$I_{PP}=12A, t_p=8/20\mu s$			20			10	V
Junction Capacitance	C_j	$V_R = 0V, f = 1MHz$		60	75		60	75	pF

Electrical Parameters (TA = 25°C unless otherwise noted)

Symbol	Parameter
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Working Peak Reverse Voltage
I_R	Maximum Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current



Note.: 8/20 μs pulse waveform.

Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

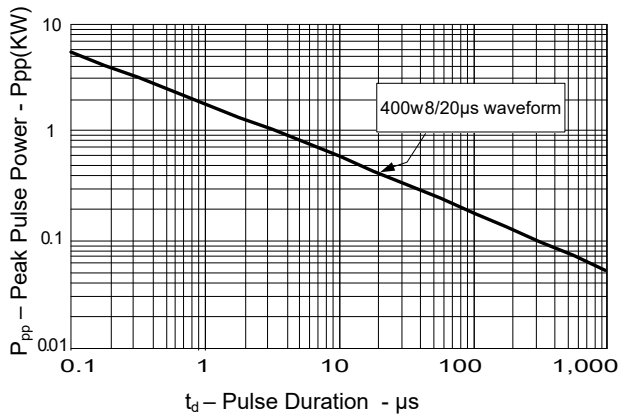


Figure 2: Power Derating Curve

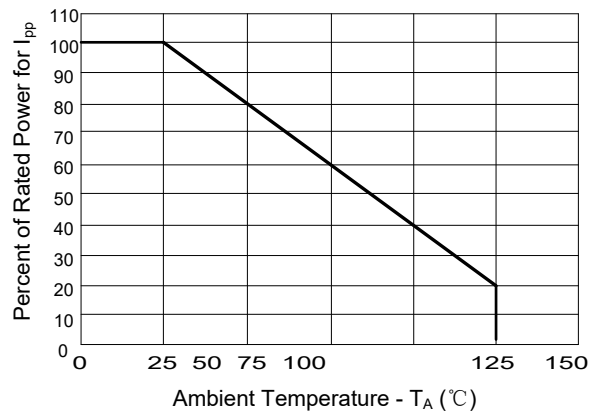


Figure 3: Pulse Waveform

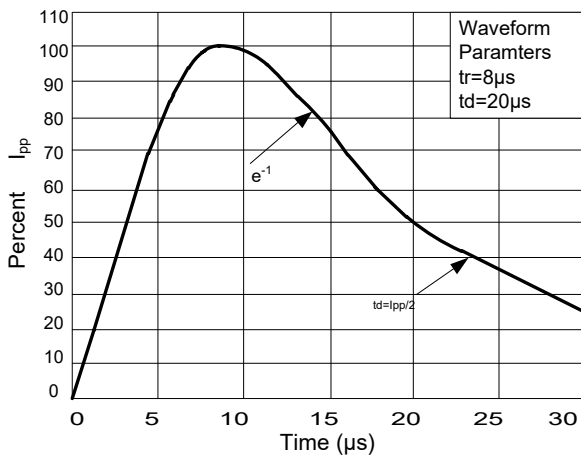
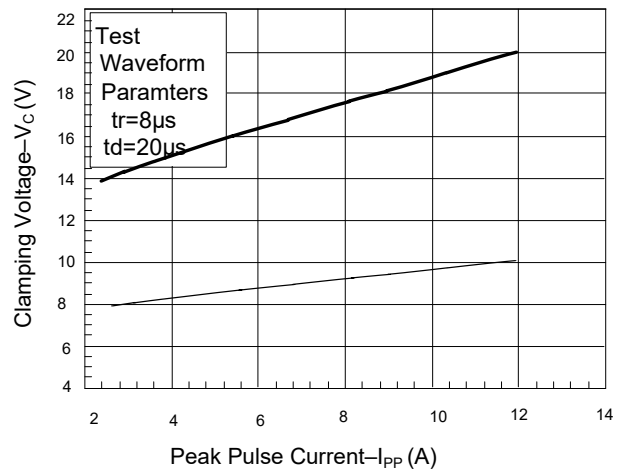
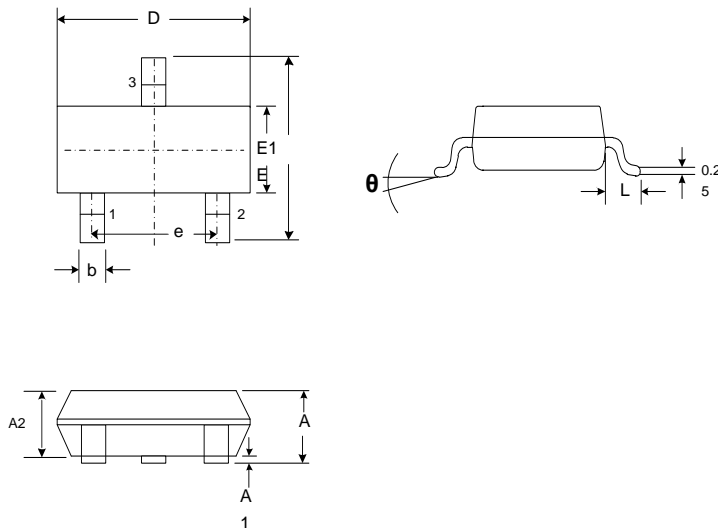


Figure 4: Clamping Voltage vs. Ipp

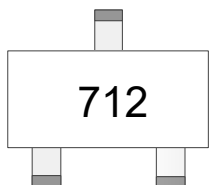


Outline Drawing – SOT-23



SYMBOL	DIMENSIONS			
	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.890	1.120	0.035	0.044
A1	0.001	0.100	0.0006	0.0043
A2	0.880	1.020	0.035	0.040
D	2.800	3.040	0.110	0.120
E	2.100	2.640	0.082	0.104
E1	1.200	1.400	0.047	0.055
e	1.900 BSC		0.750 BSC	
L	0.400	0.600	0.015	0.024
θ	0	8°	0	8°

Marking



Ordering information

Order code	Package	Base qty	Delivery mode
PTT233H60M7BA40	SOT-23	3k	Tape and reel