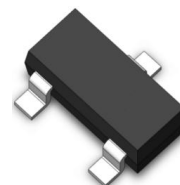


Features

- 500W ($t_p=8/20\mu s$) Peak Pulse Power
- Bi-directional configurations
- Protect two +12V to -7V lines
- Low clamping voltage
- Low leakage current
- Moisture sensitivity level: Level 3
- Solid-state silicon avalanche technology
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 20A (8/20 μs)
- Meet IEC61000-4-2
Contact discharge $\pm 30kV$
Air discharge $\pm 30kV$



Applications

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

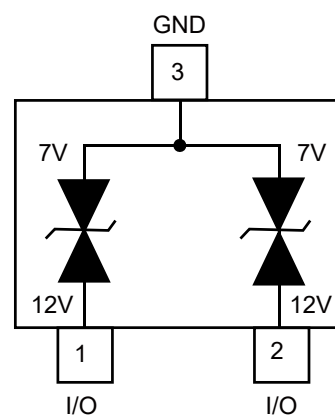
Meachanical Data

- SOT-23 package
- Molding compound flammability rating: UL94V-0
- Packaging: Tape and Reel(7 inch)

Agency Approvals

Icon	Description
RoHS	Compliance with (EU)2015/863
HF	Compliance with IEC61249-2-21:2003
	Mean lead free

Schematic & PIN Configuration



Top View

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
Peak Pulse Power($t_p=8/20\mu s$)	P_{PK}	500	W
Peak Pulse Current($t_p=8/20\mu s$)	I_{PP}	20	A
Lead Soldering Temperature	T_L	260(10seconds)	$^{\circ}C$
Junction Temperature	T_J	-55 to + 125	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to +125	$^{\circ}C$

Electrical Characteristics (TA=25 $^{\circ}C$ unless otherwise specified)

Pin3 to Pin1 /Pin2

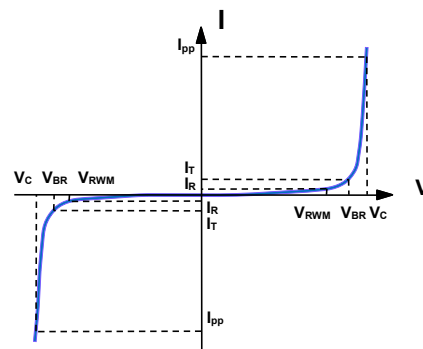
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}				7	V
Breakdown Voltage	V_{BR}	$I_T = 1mA$	8			V
Reverse Leakage Current	I_R	$V_R=V_{RWM}$			1	μA
Clamping Voltage	V_C	$I_{PP} = 28A, t_p=8/20\mu s$			18	V
Junction Capacitance	C_J	$V_R=0V, f = 1MHz$		60	70	pF

Pin1 /Pin2 to Pin3

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse Stand-Off Voltage	V_{RWM}				12	V
Breakdown Voltage	V_{BR}	$I_T = 1mA$	13.3			V
Reverse Leakage Current	I_R	$V_R=V_{RWM}$			1	μA
Clamping Voltage	V_C	$I_{PP} = 20A, t_p=8/20\mu s$			26	V
Junction Capacitance	C_J	$V_R=0V, f = 1MHz$		60	70	pF

I-V Curve Characteristics

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



Characteristics Cureves(TA=25°C unless otherwise Specified)

Fig 1. 8/20μs Pulse Waveform

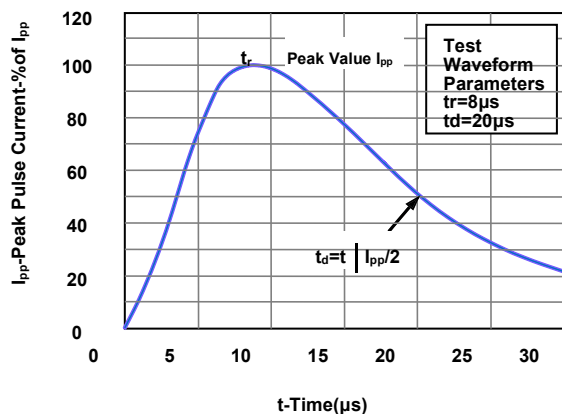


Fig 5. Peak Pulse Power vs.Pulse Time

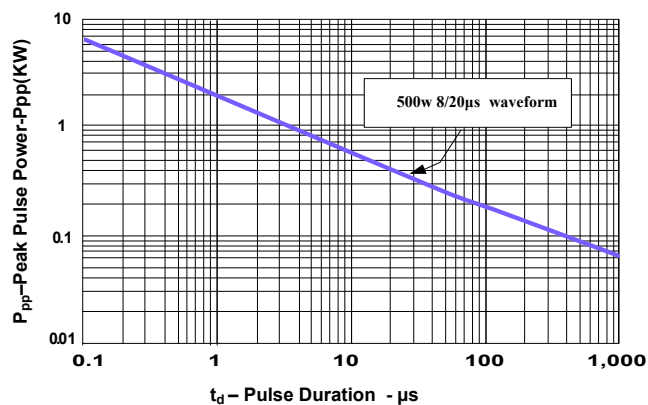


Fig 3. Power Derating Curve

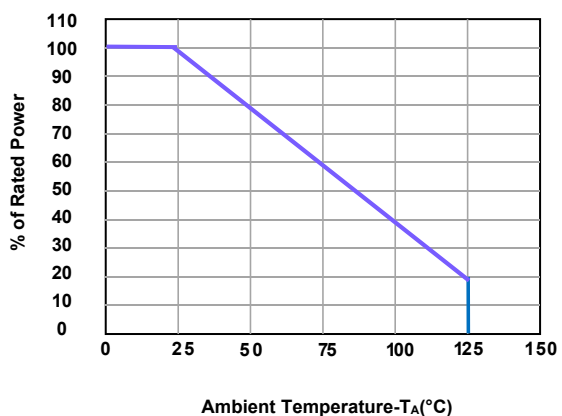
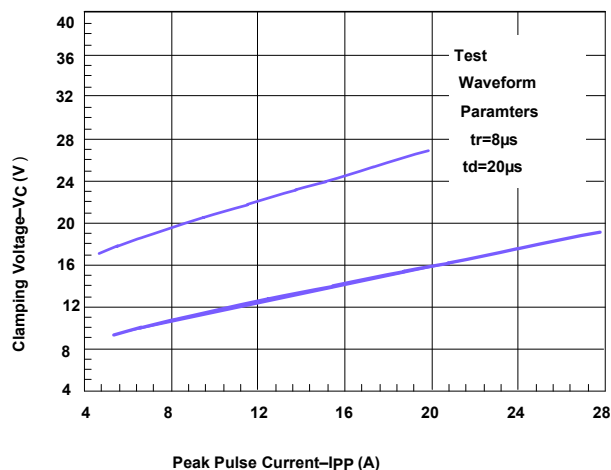
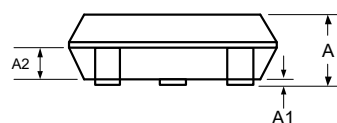
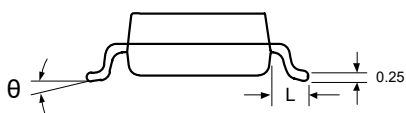
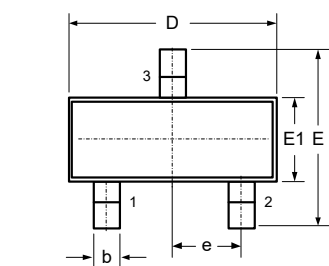


Figure 4.Clamping Voltage vs.Ipp

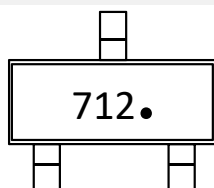


SOT-23 Package Outline

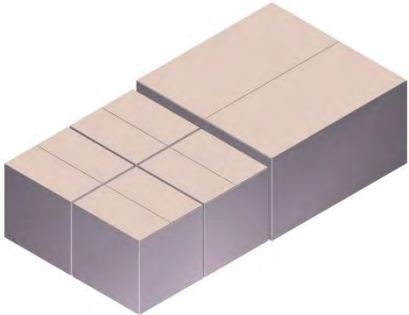


DIMENSIONS				
SYMBOL	MILLIMETER		INCHES	
	MIN	MAX	MIN	MAX
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
D	2.800	3.000	0.110	0.118
b	0.300	0.500	0.012	0.020
E	2.250	2.550	0.089	0.100
E1	1.200	1.400	0.047	0.055
e	0.950 BSC		0.037 BSC	
L	0.300	0.500	0.012	0.020
θ	0	8°	0	8°

Marking Information



Packaging Information

	Reel	Inner Box	Carton
Size	φ178mm(7 inch)	215×205×205mm	435×435×230mm
Quantity	MPQ/MOQ: 1 reel=3000pcs	1 Inner box=10 reels=30,000pcs	1Carton=4 Inner boxes=120,000pcs
Photos			

Notice: 1、 Each reel is placed in an aluminum foil bag and vacuum-packed separately.

2、 Above packaging photos make from 3D software for reference only, please refer to actual product as the standard.