



Features

- 350 watts peak pulse power ($t_p = 8/20\mu s$)
- Response Time is Typically < 1 ns
- Protects one bidirectional line or two unidirectional lines
- Working Voltages: 24V
- Low clamping voltages



SOT-23

IEC Compatibility (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 6.5A (8/20 μs)

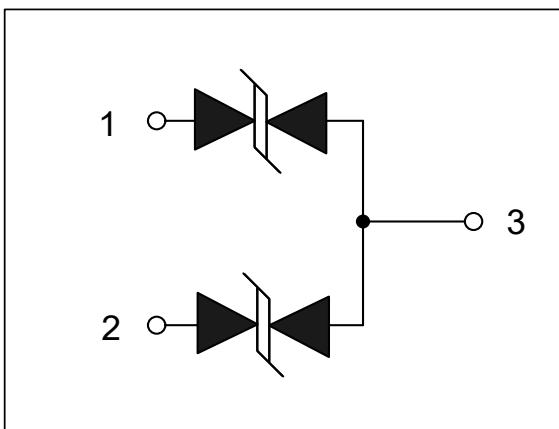
Mechanical Characteristics

- JEDEC SOT-23 package
- Molding compound flammability rating:
- UL 94V-0
- Marking : Marking Code
- Packaging : Tape and Reel per EIA 481
- RoHS Compliant

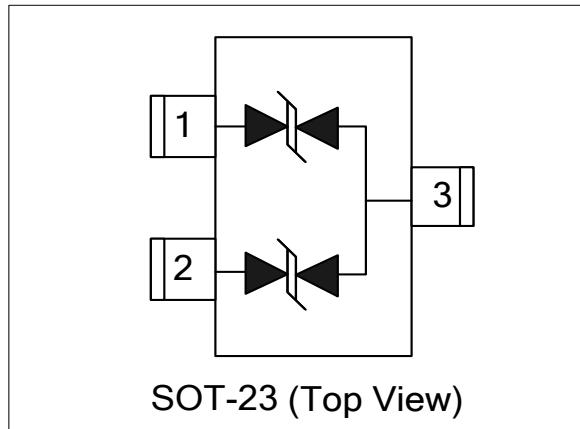
Applications

- Automotive Networks
- Control & Monitoring Systems
- Portable Electronics
- Set-Top Box
- Servers, Notebook, and Desktop PC
- Wireless Bus Protection

Circuit Diagram



Schematic & PIN Configuration



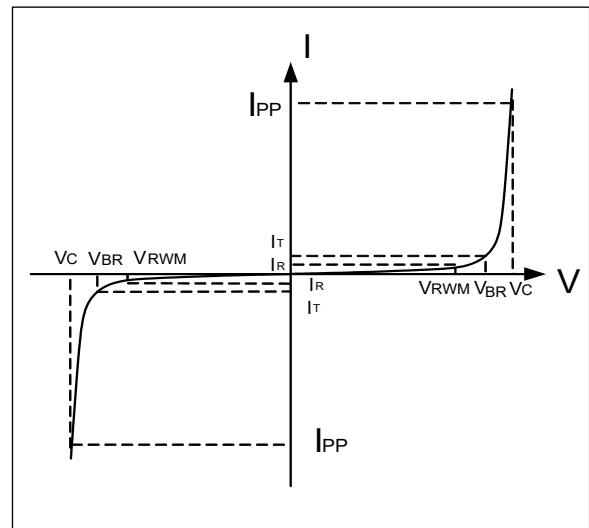


Absolute Maximum Rating

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{PP}	350	Watts
Lead Soldering Temperature	T_L	260(10sec)	°C
Operating Temperature	T_J	-55 to + 125	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Electrical Parameters (T=25°C)

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



Electrical Characteristics

DW24M2T-B-S						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	V_{RWM}				24	V
Reverse Breakdown Voltage	V_{BR}	$I_T=1mA$	26.2			V
Reverse Leakage Current	I_R	$V_{RWM}=24V, T=25^\circ C$			200	nA
Peak Pulse Current	I_{PP}	$t_p=8/20\mu s$			6.5	A
Maximum Clamping Voltage	V_C	$I_{PP}=6.5A, t_p=8/20\mu s$		40	52	V
Junction Capacitance	C_J	Pin 1 to 3 or Pin 2 to 3 $V_R = 0V, f = 1MHz$		30	40	pF



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

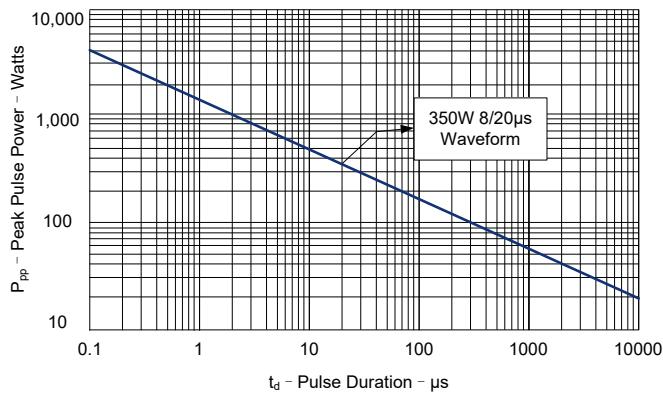


Figure 2: Power Derating Curve

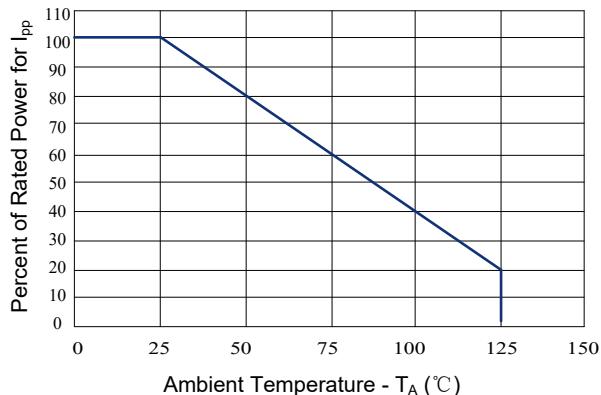


Figure 3: Clamping Voltage vs. Peak Pulse Current

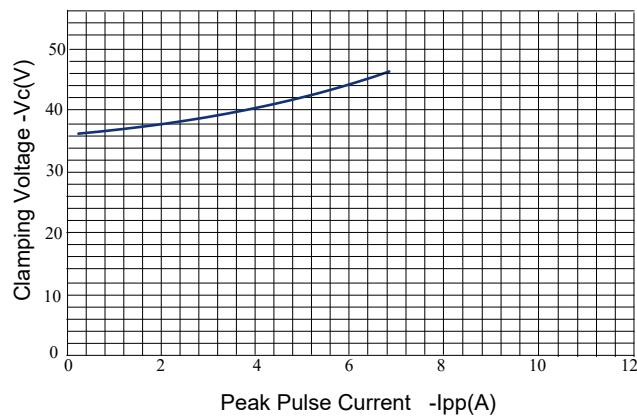


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

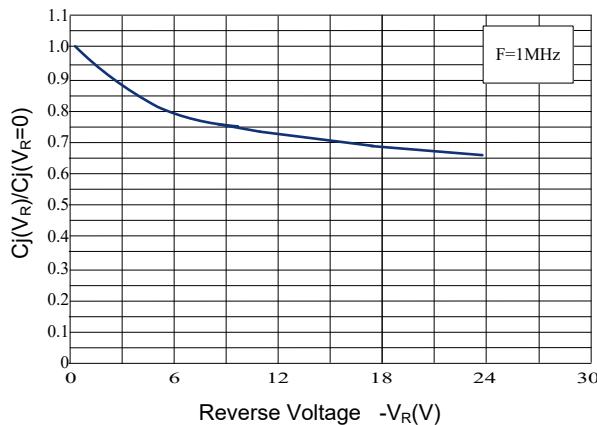
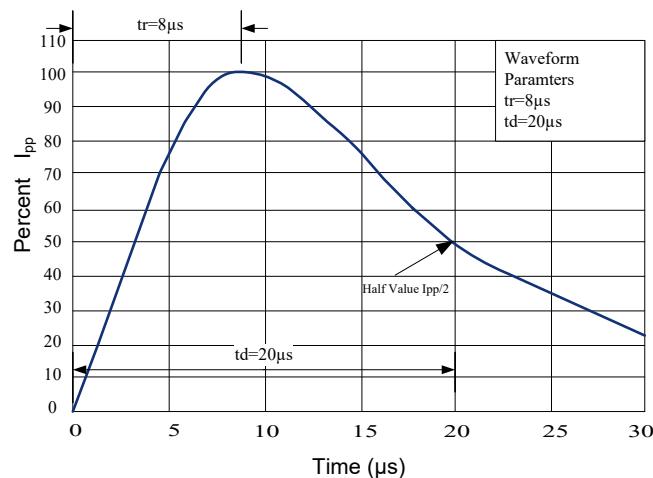


Figure 5: Pulse Waveform

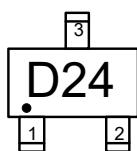




Outline Drawing – SOT-23

PACKAGE OUTLINE					
		DIMENSIONS			
		SYMBOL	MILLIMETER INCHES		
			MIN MAX MIN MAX		
A		0.90	1.15	0.035	0.045
A1		0.00	0.10	0.000	0.004
A2		0.60	0.70	0.0236	0.0275
b		0.30	0.50	0.012	0.020
c		0.08	0.15	0.003	0.006
D		2.80	3.00	0.110	0.118
E		2.25	2.55	0.089	0.100
E1		1.20	1.40	0.047	0.055
e		0.95 BSC		0.0374 BSC	
e1		1.80	2.00	0.071	0.079
L		0.30	0.50	0.012	0.020
θ		0	8	0	8°
DIMENSIONS					
DIM	INCHES	MILLIMETERS			
M	0.0795	2.02			
C	0.0315	0.80			
Z	0.111	2.82			
e	0.037 BSC	0.95 BSC			
e1	0.075 BSC	1.9 BSC			
b	0.0315	0.80			
Notes					
1. Dimensioning and tolerances per ANSI Y14.5M, 1985.					
2. Controlling Dimension: Inches					
3. Pin 3 is the cathode (Unidirectional Only).					
4. Dimensions are exclusive of mold flash and metal burrs.					

Marking Codes



Package Information

Qty: 3k/Reel