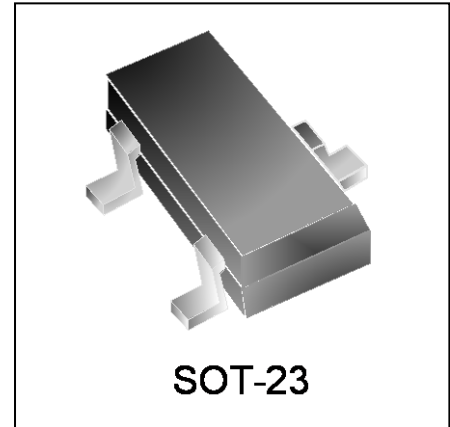


### Features

- 250 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

### IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD)  $\pm 15kV$  (air),  $\pm 8kV$  (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 6A (8/20 $\mu s$ )



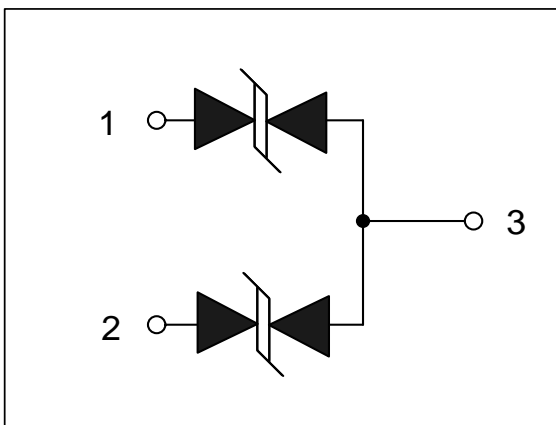
### Mechanical Characteristics

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

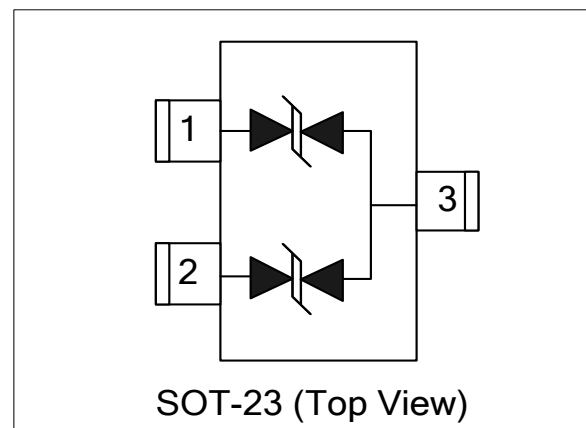
### Applications

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

### Circuit Diagram



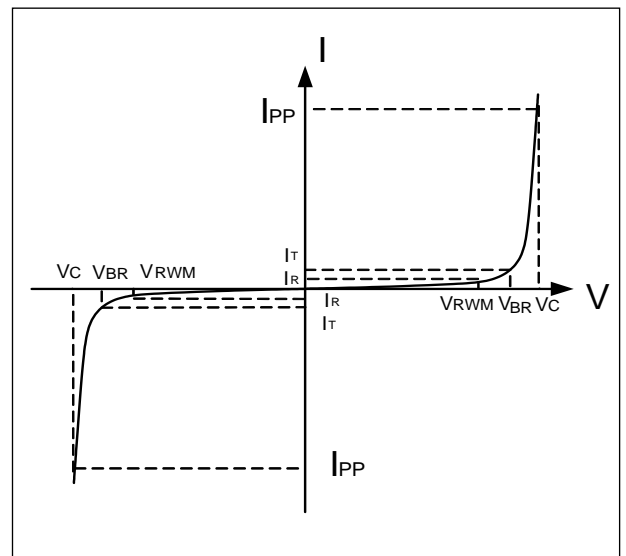
### Schematic & PIN Configuration



Absolute Maximum Rating			
Rating	Symbol	Value	Units
Peak Pulse Power ( $t_p=8/20\mu s$ )	$P_{PP}$	250	Watts
Lead Soldering Temperature	$T_L$	260(10sec)	$^{\circ}C$
Operating Temperature	$T_J$	-55 to + 125	$^{\circ}C$
Storage Temperature	$T_{STG}$	-55 to +150	$^{\circ}C$

## Electrical Parameters (T=25 $^{\circ}C$ )

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
$I_F$	Forward Current
$V_F$	Forward Voltage @ $I_F$

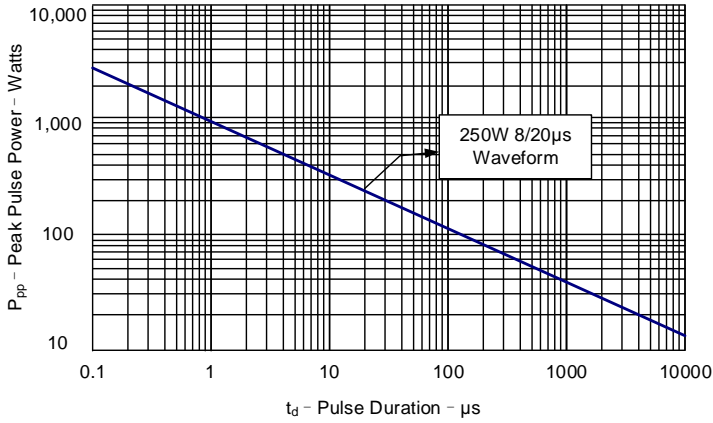


## Electrical Characteristics

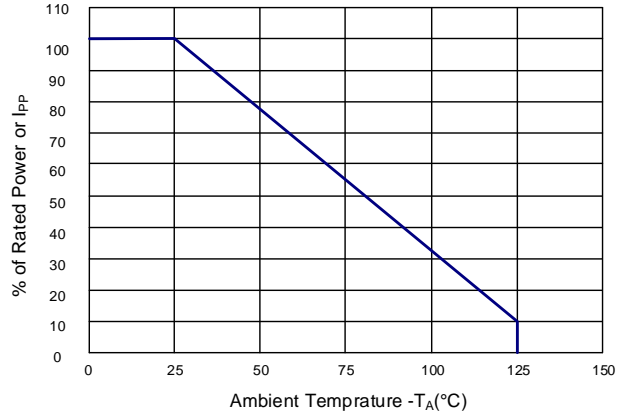
HDW24M2T-B-S						
Parameter	Symbol	Conditions	Minimum	Typical	Maximum	Units
Reverse Stand-Off Voltage	$V_{RWM}$				24	V
Reverse Breakdown Voltage	$V_{BR}$	$I_T=1mA$	26.7			V
Reverse Leakage Current	$I_R$	$V_{RWM}=24V, T=25^{\circ}C$			1	$\mu A$
Peak Pulse Current	$I_{PP}$	$t_p=8/20\mu s$			6	A
Maximum Clamping Voltage	$V_C$	$I_{PP}=6A, t_p=8/20\mu s$			40	V
Junction Capacitance	$C_j$	Pin 1 to 3 or Pin 2 to 3 $V_R=0V, f=1MHz$		15		pF

# Typical Characteristics

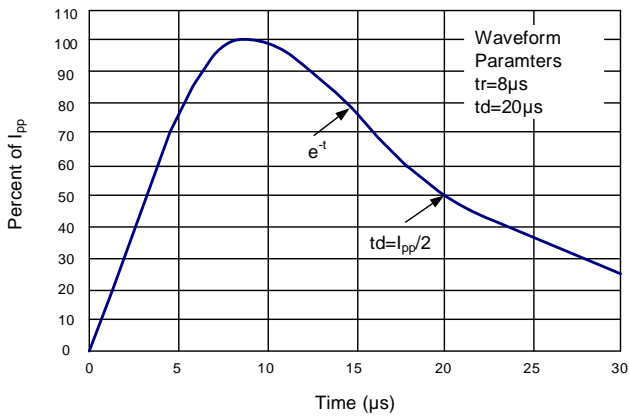
**Peak Pulse Power vs. Pulse Time**



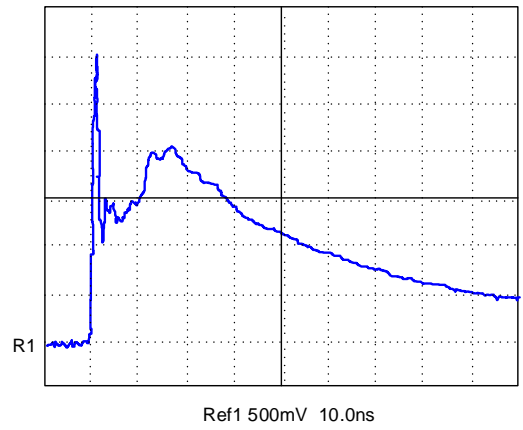
**Power Derating Curve**



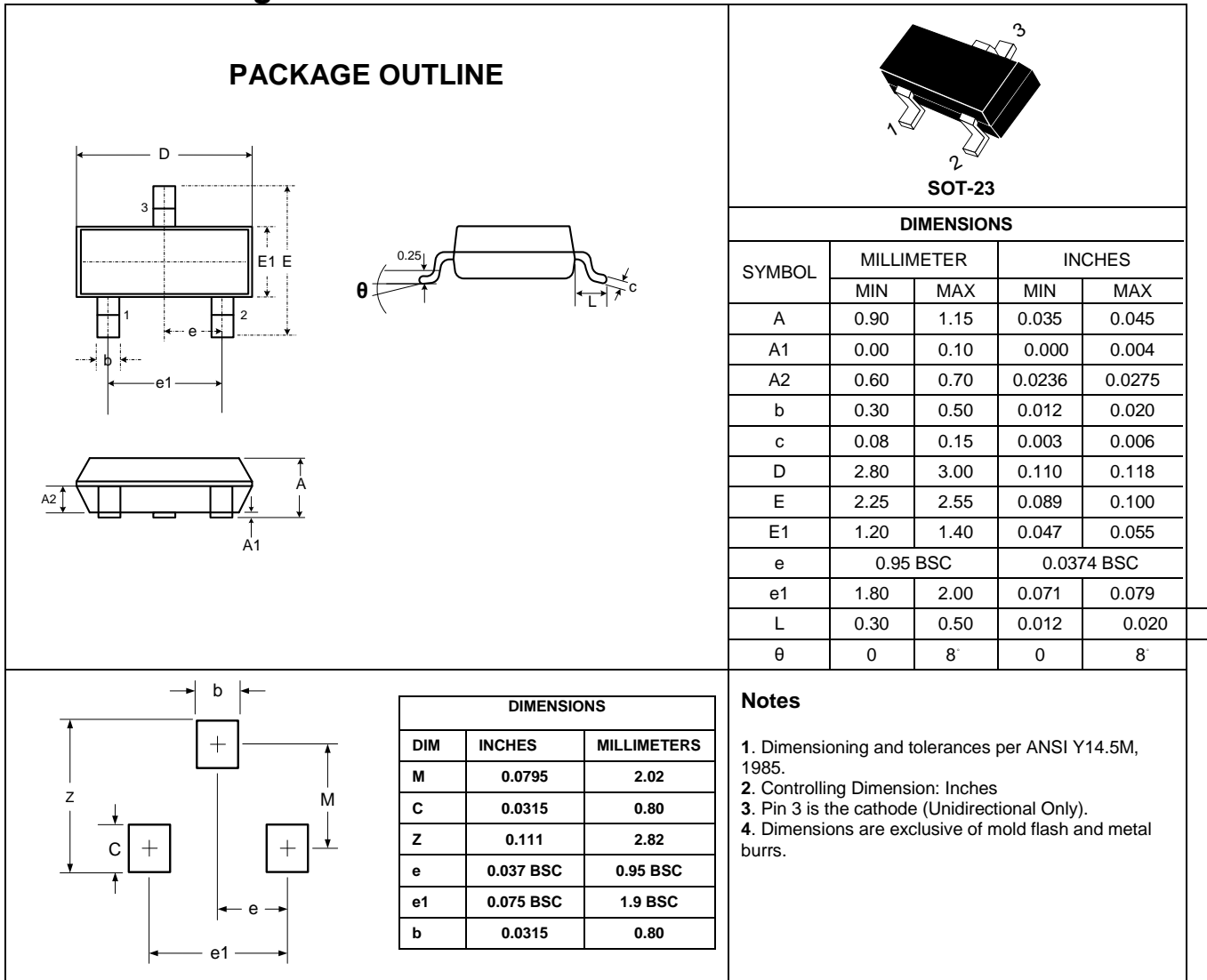
**Pulse Waveform**



**ESD Pulse Waveform (Per IEC 61000-4-2)**



## Outline Drawing – SOT-23



## Marking Codes

Part Number	HDW24M2T-B-S
Marking Code	CB2

## Package Information

Qty: 3k/Reel