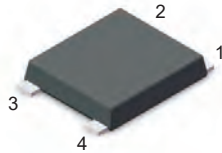


## Ultrasoft Recovery Bridge



MSB Package

### PINNING

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)

### Features

- Glass Passivated Chip Junction
- Reverse Voltage - 1000 V
- Forward Current - 4A
- High Surge Current Capability
- Designed For Surface Mount Application

### Benefits

- Case: MSB
- Terminals: Solderable Per MIL-STD-750
- Reduced power loss and switching transistor

### Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

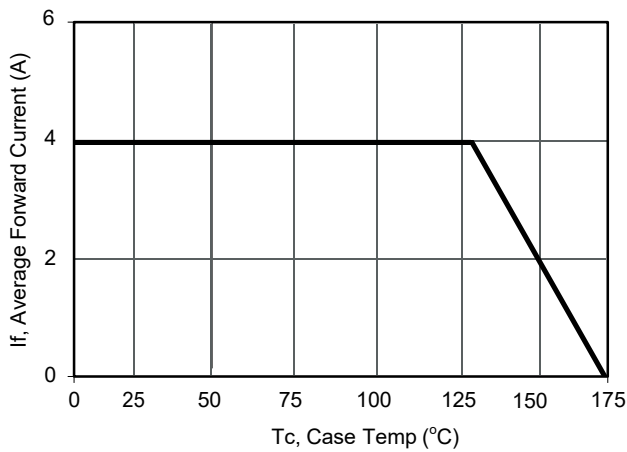
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	WRMSB40J	WRMSB40K	WRMSB40M	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	600	800	1000	V
Maximum RMS voltage	VRMS	420	560	700	V
Maximum DC Blocking Voltage	VDC	600	600	1000	V
Average Rectified Output Current	I <sub>o</sub>	4.0			A
Reverse Recovery Time. IF=0.5A,IR=1A,IRR=0.25A	T <sub>rr</sub>	10			us
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	150			A
I <sup>2</sup> t rating for fusing ( 1ms< t < 10ms)	I <sup>2</sup> t	112			A <sup>2</sup> S
Maximum Forward Voltage at 2.0 A	V <sub>F</sub>	1.1			V
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	I <sub>R</sub>	5 100			μA
Typical Junction Capacitance (Note1)	C <sub>j</sub>	30			pF
Operating and Storage Temperature Range	T <sub>j</sub> , T <sub>stg</sub>	-55 ~ +175			°C
Typical thermal resistance (Note 2)	R <sub>thJC</sub> R <sub>thJA</sub>	6 12			°C/W

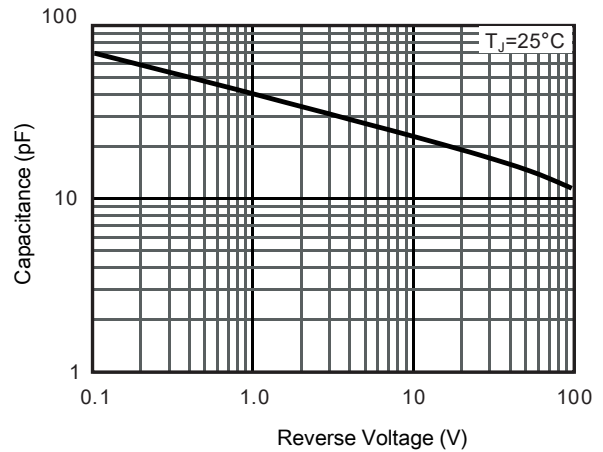
Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

2. Thermal resistance from Junction to case, lead and ambient in accordance with JESD-51. Unit mounted on 15mm\*12mm\*1.6mm AL pad attach 195mm\*195mm\*10mm steel plate

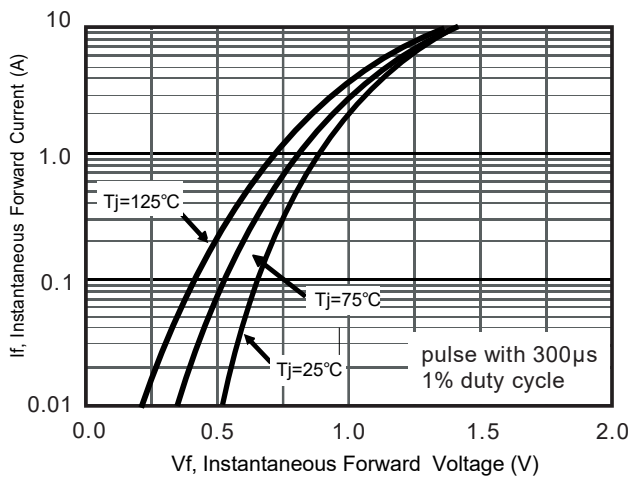
## RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



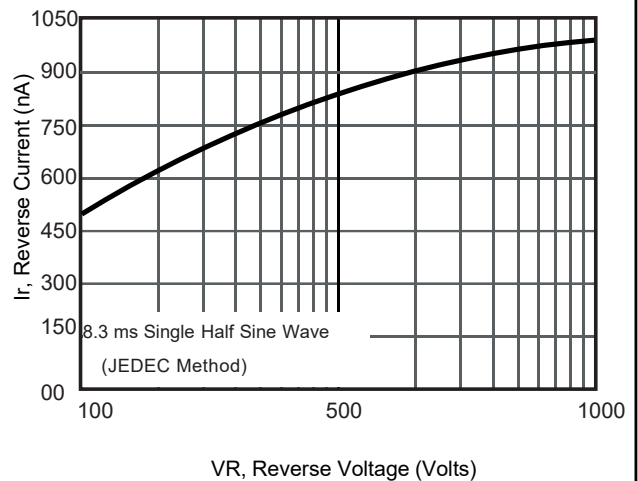
Current Derating, Case



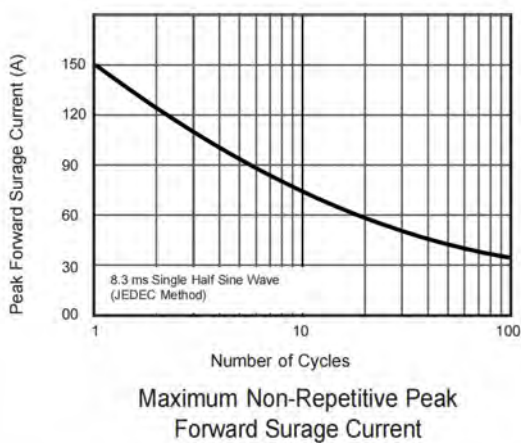
Typical Junction Capacitance



Typical Forward Voltage



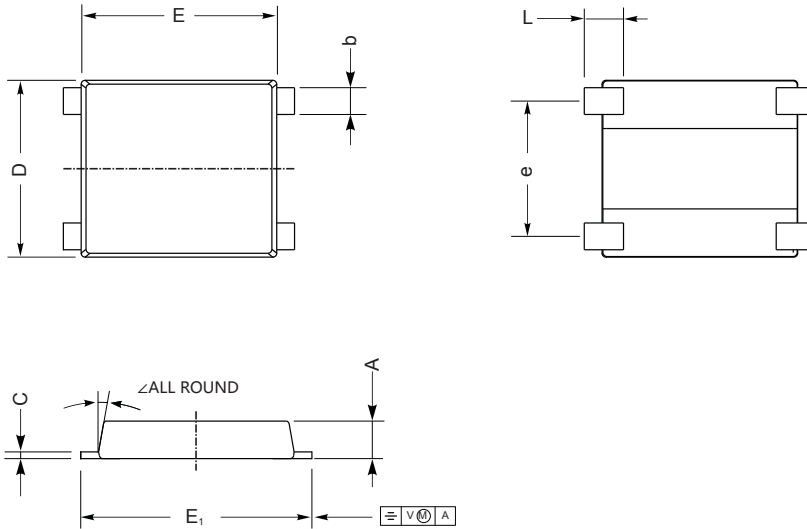
Typical Reverse Current



Maximum Non-Repetitive Peak Forward Surge Current

## PACKAGE OUTLINE DIMENSIONS

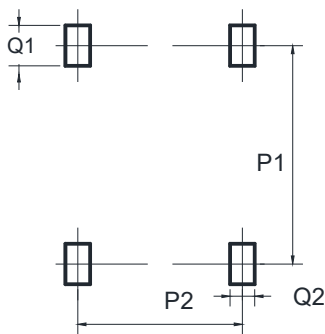
### MSB



### MSB mechanical data

UNIT		A	C	D	E	E1	L	e	b	∠
mm	max	1.5	0.29	7.0	7.6	8.9	1.6	5.3	1.15	7°
	min	1.3	0.17	6.2	7.1	8.4	1.0	4.9	0.95	
mil	max	59	12	276	299	350	63	209	45	
	min	51	7	244	280	331	39.3	193	37	

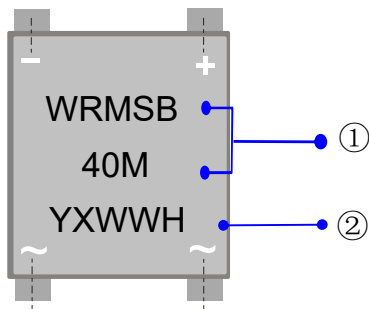
### MSB Suggested Pad Layout



UNIT		P1	P2	Q1	Q2
mm	min	8.30	5.10	1.6	1.2
mil	min	326.77	200.79	63.0	47.25

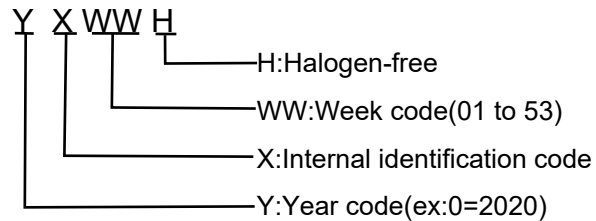
Dimensions is millimeters

## Marking Information



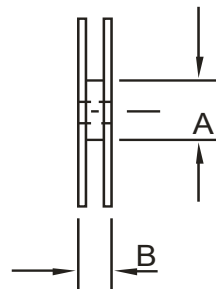
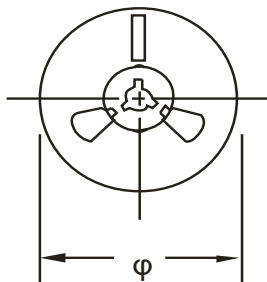
① Product model : WRMSB40J  
or WRMSB40K or WRMSB40M

② PDC information :

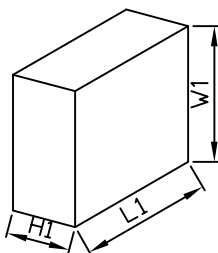


## Packaging Information

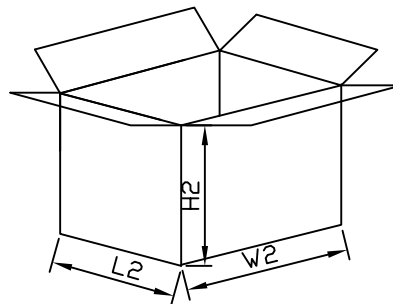
### 1.Reel Dimensions



### 2. Inside Box



### 3. Outside Box



## Packaging Information

NO	UNIT	Reel Dimensions			Inside Box			Outside Box		
		φ	A	B	L1	W1	H1	L2	W2	H2
Size	mm	330	100	15	340	340	46	360	360	270
QTY	PCS	Smallest package,3000PCS/reel			6,000PCS,2 reel in total			30,000PCS/carton,5boxes in total		
Note		Tolerance ≤20mm,±3mm;			21-100mm,±5mm;			101-500mm,±10mm		