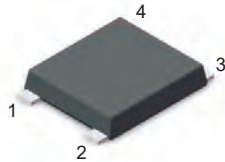


Special For DC-AC Rectifier Bridge



MSB Package

PINNING

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

Features

- Glass Passivated Chip Junction
- Reverse Voltage - 300V/600V
- 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.

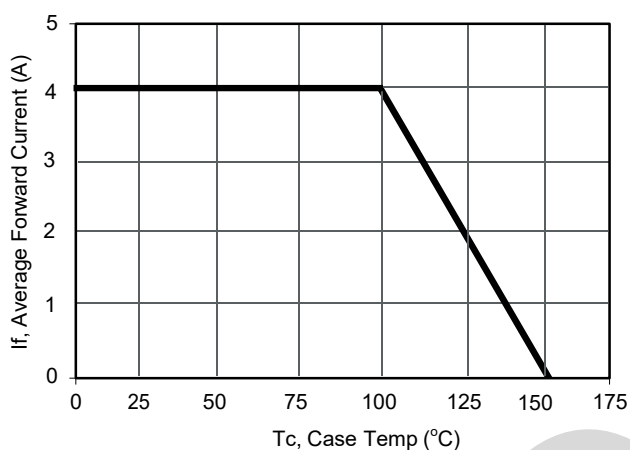
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter	Symbols	MSB403E50	MSB406E50	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	300	600	V
Maximum RMS voltage	VRMS	210	420	V
Maximum DC Blocking Voltage	VDC	300	600	V
Average Rectified Output Current	Io	4.0		A
Reverse Recovery Time. IF=0.5A,IR=1A,IRR=0.25A	Trr	75		ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	120		A
I ² t rating for fusing (1ms< t < 8.3ms)	I ² t	59.7		A ² S
Maximum Forward Voltage at 2.0 A	VF	1.0	1.30	V
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	IR	10 500		μA
Typical Junction Capacitance (Note1)	Cj	40		pF
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +175		°C
Typical thermal resistance (Note 2)	RthJC RthJA	6 12		°C/W

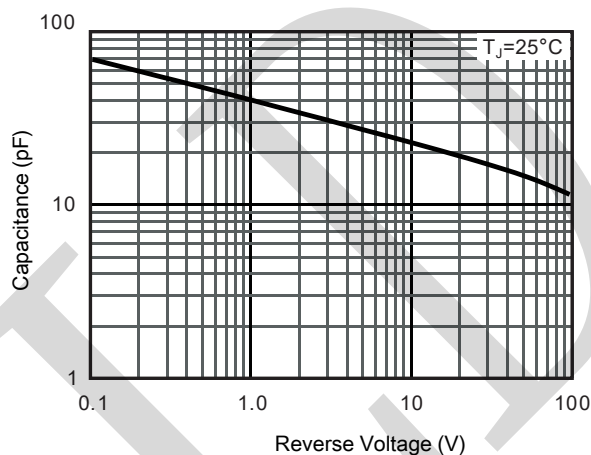
Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

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

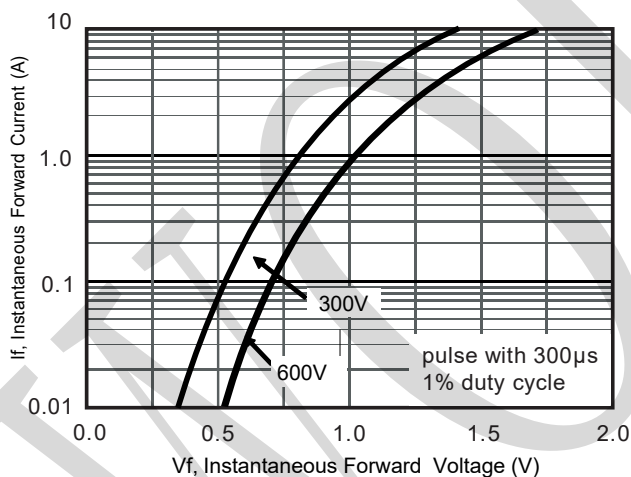
RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)



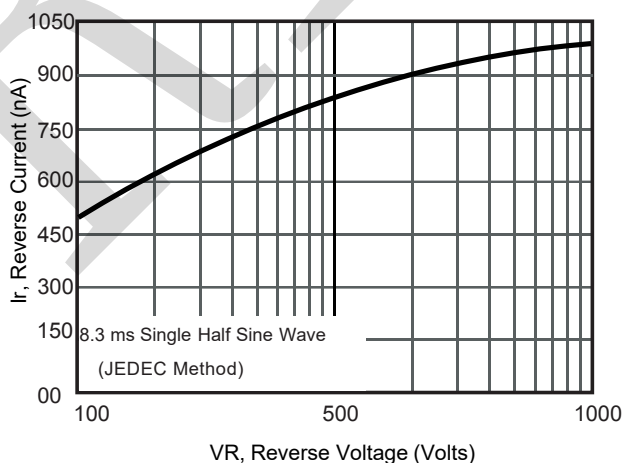
Current Derating, Case



Typical Junction Capacitance



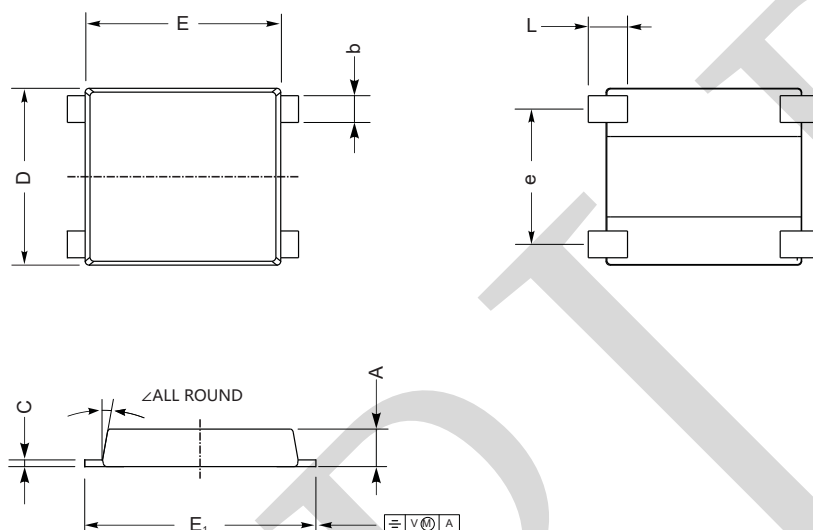
Typical Forward Voltage



Typical Reverse Current

PACKAGE OUTLINE DIMENSIONS

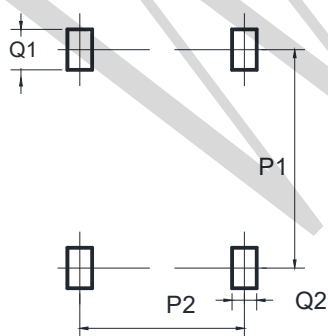
MSB



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	

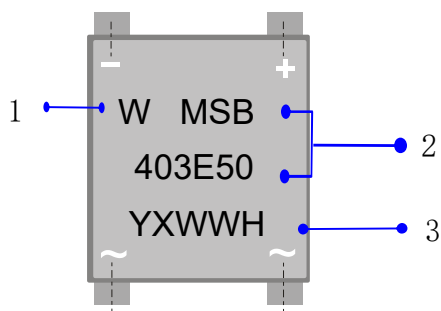
MSB Suggested Pad Layout



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

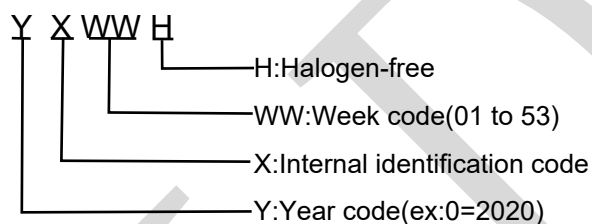
Dimensions is millimeters

Marking Information



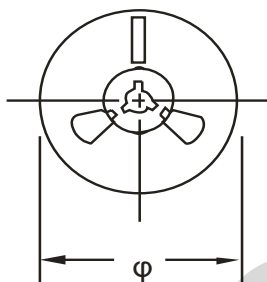
- ① Company Brand: W
② Product model : MSB403E50 or MSB406E50

③ PDC information :

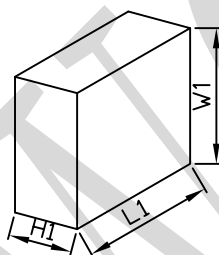


Packaging Information

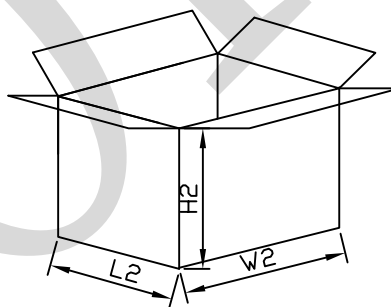
1. Reel Dimensions



2. Inside Box



3. Outside Box



Packaging Information

NO	UNIT	Reel Dimensions			Inside Box			Outside Box		
Size	mm	φ	A	B	L1	W1	H1	L2	W2	H2
		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									