

## Bridge Rectifiers

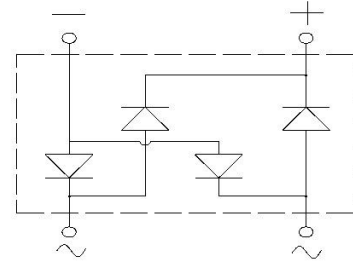
### Features

- High efficiency
- Ideal for automated placement
- High surge current capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C



### Typical Applications

General purpose use in AC/DC bridge full wave rectification for power supply, lighting ballast, battery charger, home appliances, office equipment, and telecommunication applications.



### Mechanical Data

- Package: BBS
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: As marked on body.

### ■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	VBBS4						
			005	01	02	04	06	08	10
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V <sub>RMS</sub>	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V <sub>DC</sub>	V	50	100	200	400	600	800	1000
Average Forward Current @Half-sine wave, Resistance load, Tc=70°C	I <sub>o</sub>	A	4						
Forward Surge Current (Non-repetitive) @60HZ sine wave, 1 cycle, Ta=25°C	I <sub>FSM</sub>	A	150						
Current squared time @1ms≤t≤10ms Ta=25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	112						
Thermal Resistance(Typical) @Between junction and ambient	R <sub>θJ-A</sub>	°C/W	55						
Storage Temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction Temperature	T <sub>j</sub>	°C	-55 ~ +150						

### ■ Electrical Characteristics ( Ta=25°C Unless otherwise specified )

PARAMETER	Symbol	Unit	Conditions	VBBS4						
				005	01	02	04	06	08	10
Peak Forward Voltage	V <sub>FM</sub>	V	I <sub>F</sub> = 2.0A	1.0						
Peak Reverse Current	I <sub>RRM</sub>	µA	VR = V <sub>DC</sub> @Ta=25°C	5						
			VR = V <sub>DC</sub> @Ta=125°C	300						
Maximum reverse recovery time	T <sub>rr</sub>	ns	IF=0.5A, IR=1.0A, Irr=0.25A	500						

■ Characteristics ( Typical )

FIG.1:  $I_o$ - $T_a$  Curve

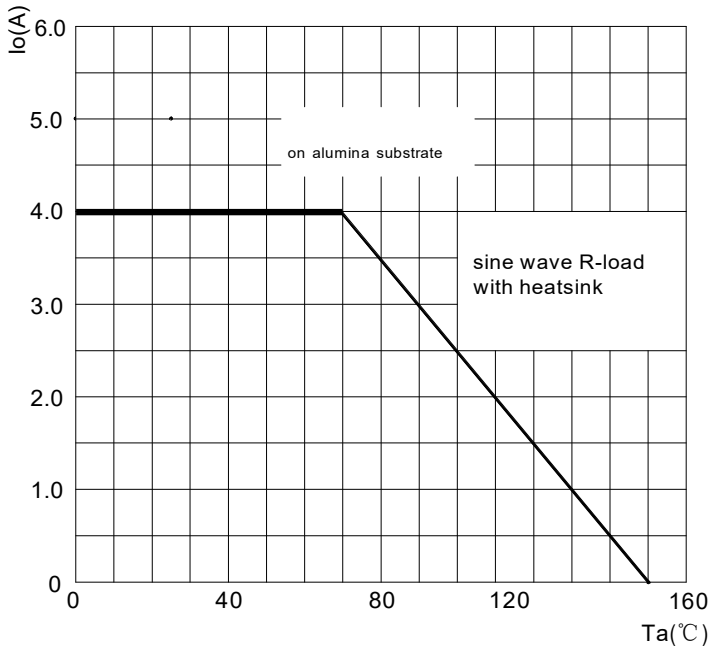


FIG.2: Forward Surge Current Capability

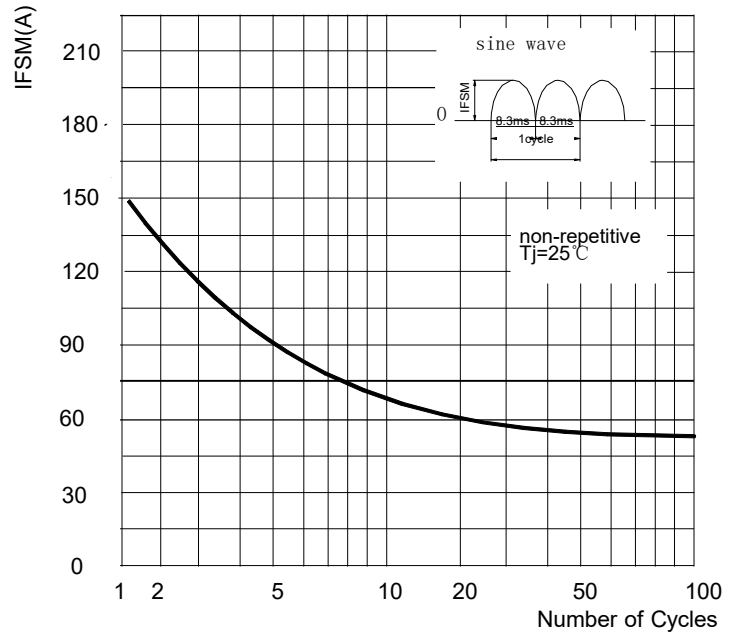


FIG.3: Forward Voltage

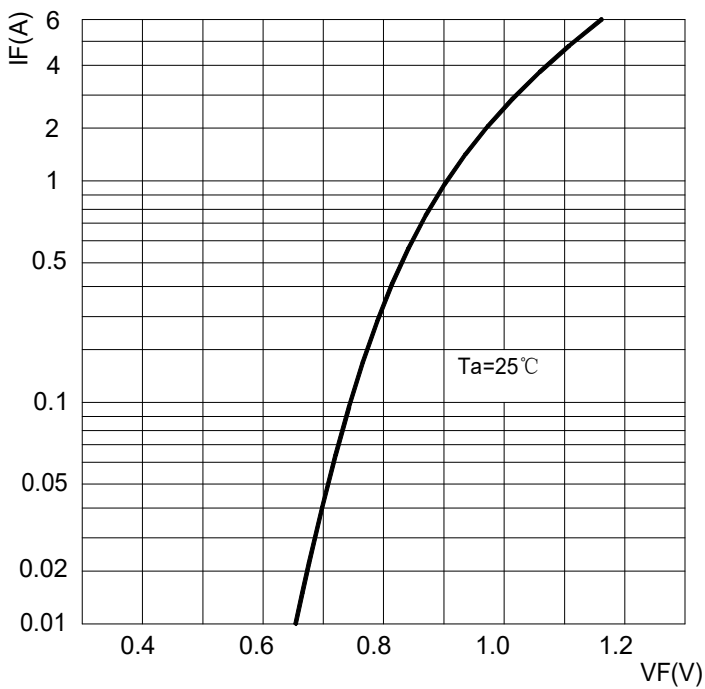
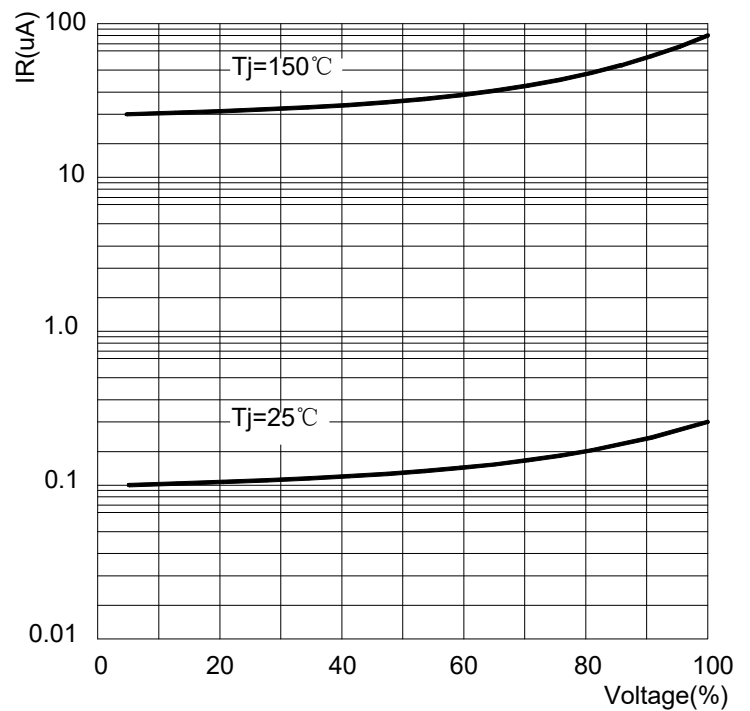


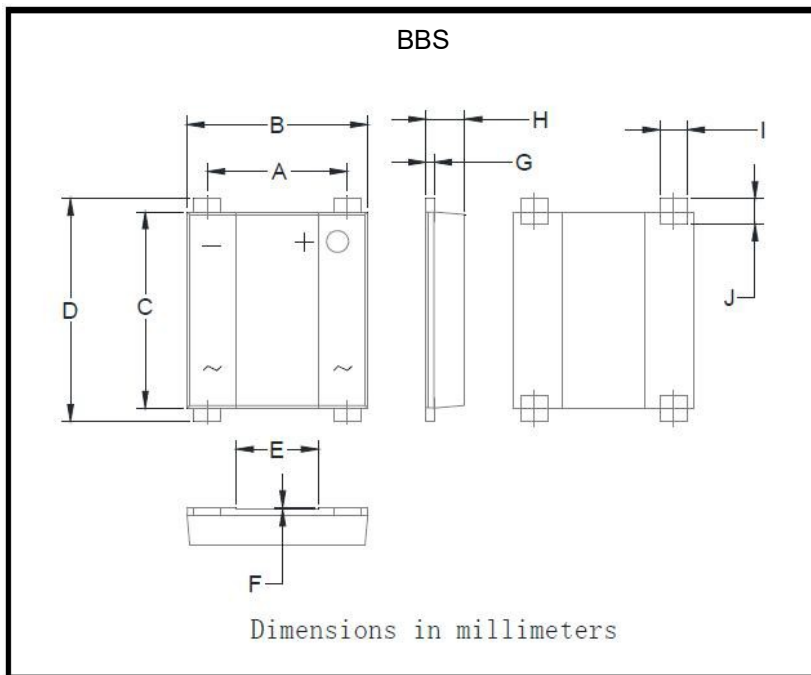
FIG.4: Typical Reverse Characteristics



### ■ Ordering Information (Example)

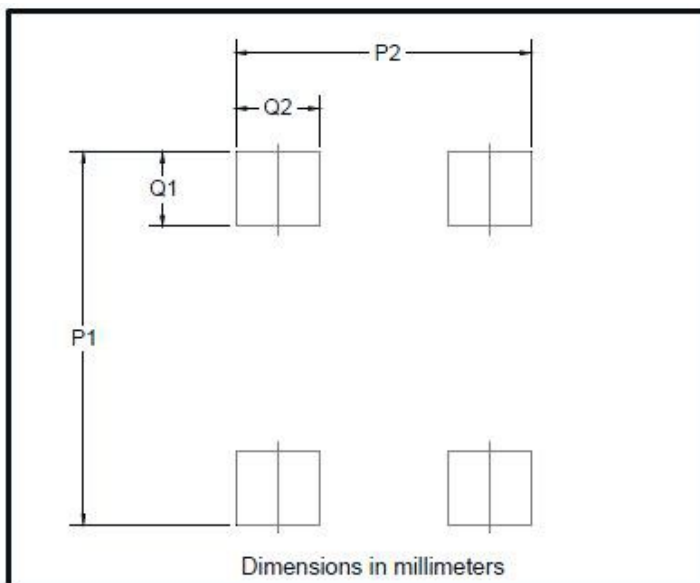
PREFERRED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
VBBS4005 THRU VBBS410	BBS	3000	6000	48000	13" reel

### ■ Outline Dimensions



BBS		
Dim	Min	Max
A	5.00	5.20
B	6.50	6.70
C	7.20	7.40
D	7.90	8.60
E	2.90	3.10
F	0.04	0.08
G	0.25	0.40
H	1.30	1.50
I	0.95	1.15
J	0.70	1.05

### ■ Suggested pad layout



Dim	Min
P1	9.15
P2	7.10
Q1	1.80
Q2	2.00