

Bridge Rectifiers

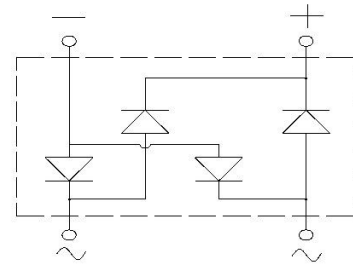
Features

- 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	VBBS3						
			005	01	02	04	06	08	10
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V _{RMS}	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V _{DC}	V	50	100	200	400	600	800	1000
Average Forward Current @Half-sine wave, Resistance load, Tc=70°C	I _o	A	3						
Forward Surge Current (Non-repetitive) @60HZ sine wave, 1 cycle, Ta=25°C	I _{FSM}	A	140						
Current squared time @1ms≤t≤10ms Ta=25°C, Rating of per diode	I ² t	A ² s	98						
Thermal Resistance(Typical) @Between junction and ambient	R _{θJ-A}	°C/W	55						
Storage Temperature	T _{stg}	°C	-55 ~ +150						
Junction Temperature	T _j	°C	-55 ~ +150						

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

PARAMETER	Symbol	Unit	Conditions	VBBS3						
				005	01	02	04	06	08	10
Peak Forward Voltage	V _{FM}	V	I _F = 1.5A	1.0						
Peak Reverse Current	I _{RRM}	µA	VR = V _{DC} @Ta=25°C	5						
			VR = V _{DC} @Ta=125°C	300						
Maximum reverse recovery time	T _{rr}	ns	IF=0.5A, IR=1.0A, Irr=0.25A	500						

■ Characteristics (Typical)

FIG.1: I_o - T_a Curve

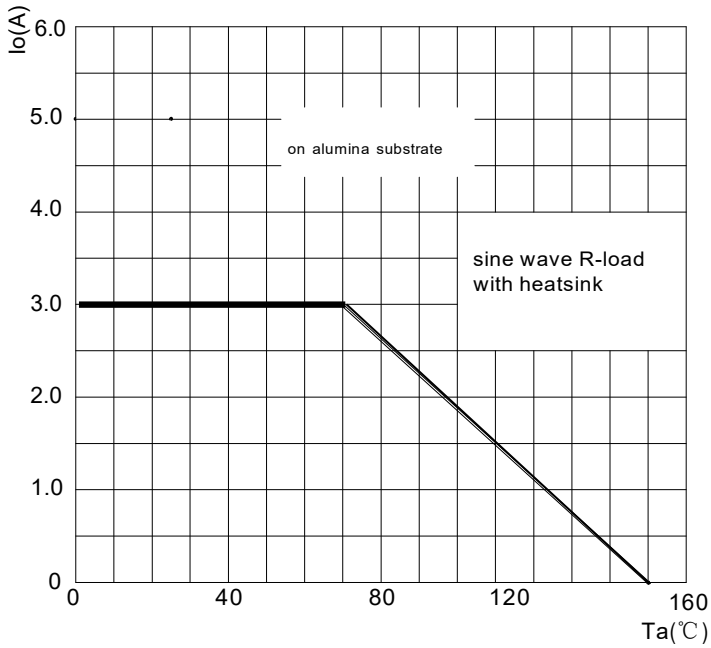


FIG.2: Forward Surge Current Capability

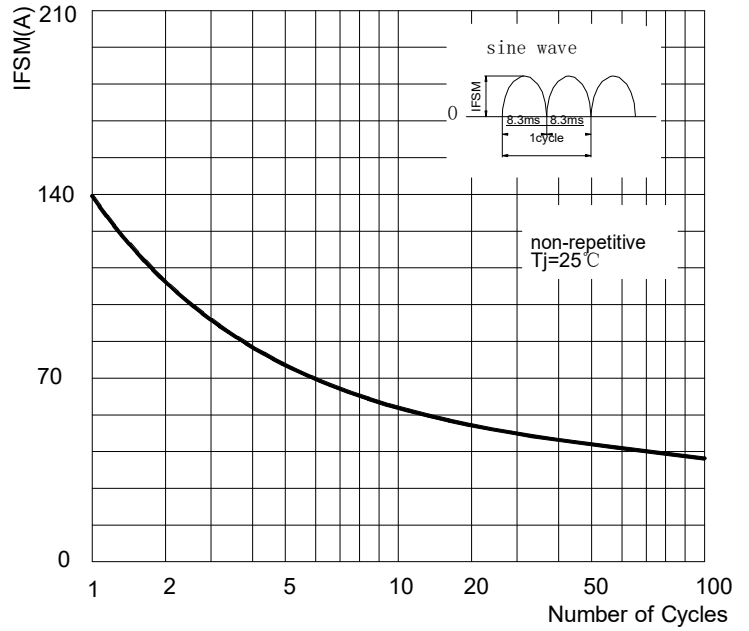


FIG.3: Forward Voltage

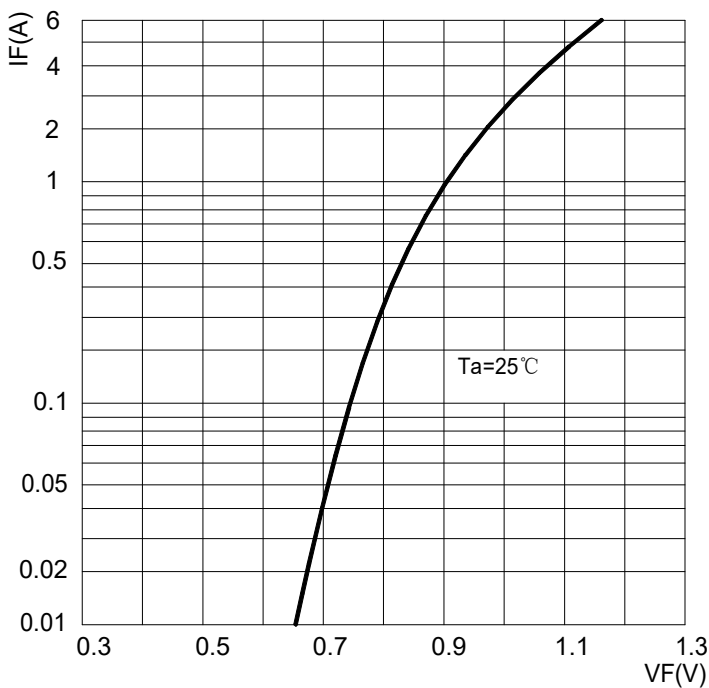
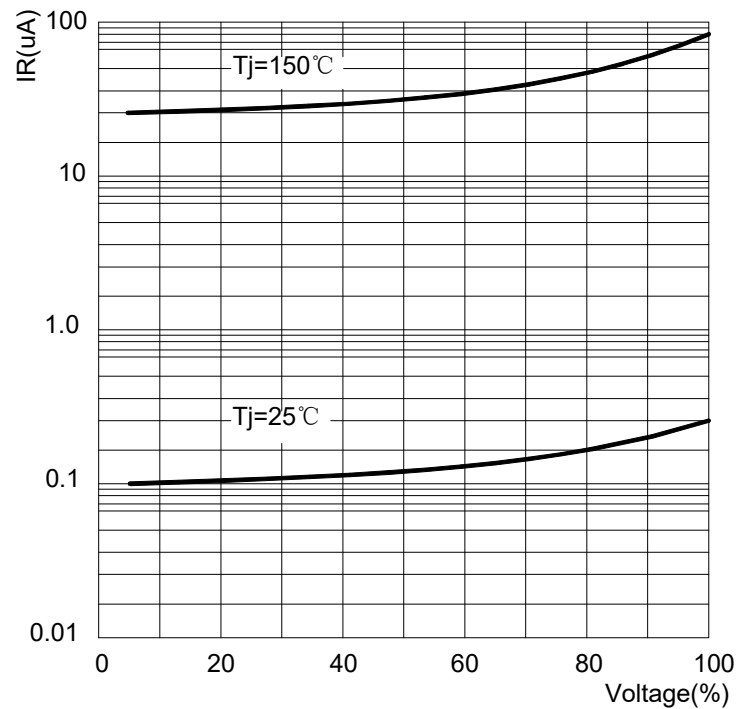


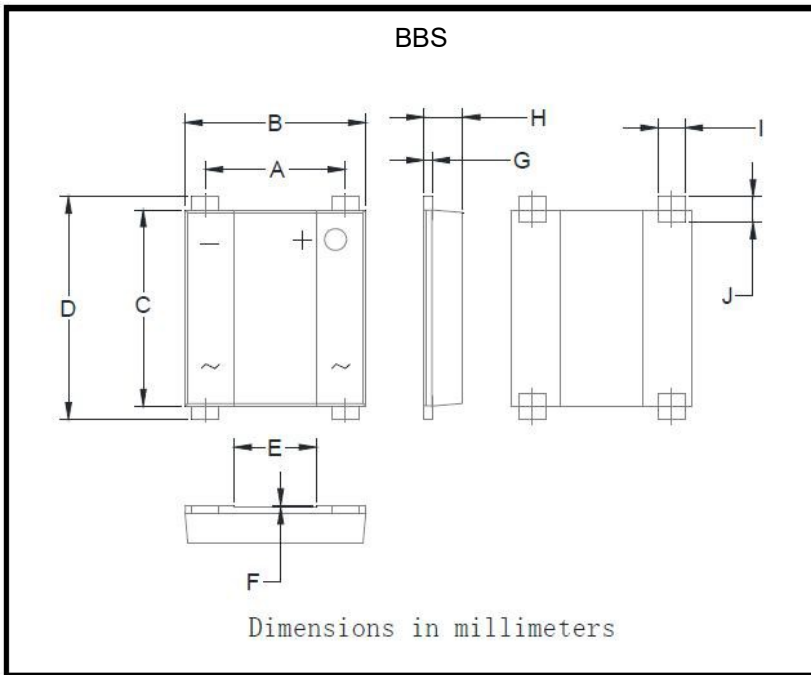
FIG.4: Typical Reverse Characteristics



■ **Ordering Information (Example)**

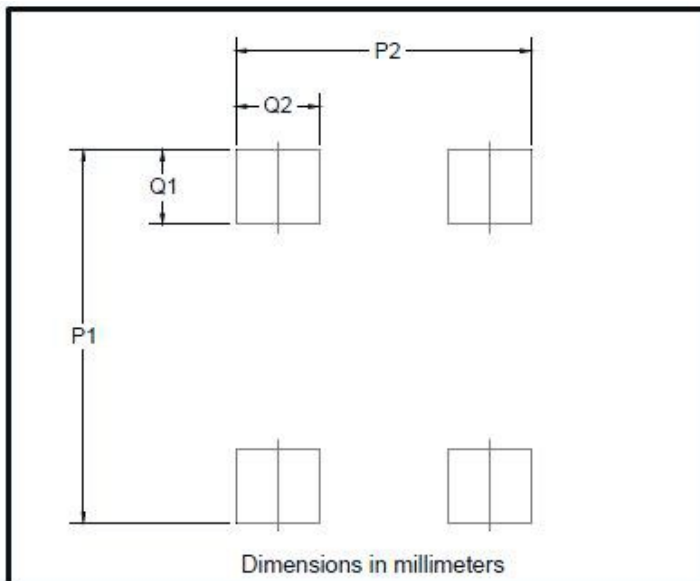
PREFERRED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
VBBS3005 THRU VBBS310	BBS	3000	6000	48000	13" reel

■ **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