

■ FEATURES

- UL recognition, file #E313149
- Glass passivated chip junction
- 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 SMPS, lighting ballaster, adapter, battery charger, home appliances, office equipment, and telecommunication applications.

■ MECHANICAL DATA

- **Package:** YBS3
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, Halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked on body

■ MAXIMUM RATINGS (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	YBSM40005	YBSM4001	YBSM4002	YBSM4004	YBSM4006	YBSM4008	YBSM4010
Device marking code			YBSM40005	YBSM4001	YBSM4002	YBSM4004	YBSM4006	YBSM4008	YBSM4010
Maximum Repetitive Peak Reverse Voltage	VRRM	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	VRMS	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	VDC	V	50	100	200	400	600	800	1000
Average rectified output current @60Hz sine wave, R-load, T _c =100°C	I _O	A	4.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _j =25°C	IFSM	A	120						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, T _j =25°C			240						
Current squared time @1ms≤t≤8.3ms T _j =25°C, Rating of per diode	I ² t	A ² s	59.8						
Storage temperature	T _{stg}	°C	-55 ~ +150						
Junction temperature	T _j	°C	-55 ~ +150						

■ ELECTRICAL CHARACTERISTICS (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	YBSM40005	YBSM4001	YBSM4002	YBSM4004	YBSM4006	YBSM4008	YBSM4010
Maximum instantaneous forward voltage drop per diode	V _F	V	I _F M=2.0A	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I _R	μA	T _j =25°C	5						
			T _j =125°C	100						
Typical junction capacitance	C _j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	37						

■ **THERMAL CHARACTERISTICS** ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	YBSM40005	YBSM4001	YBSM4002	YBSM4004	YBSM4006	YBSM4008	YBSM4010
Typical Thermal Resistance	Between Junction and Ambient	$R_{\theta J-A}$	$^{\circ}\text{C/W}$	55						
	Between Junction and Lead	$R_{\theta J-L}$		10						
	Between Junction and Case	$R_{\theta J-C}$		7						

Note: Device mounted on P.C.B with 35mm*25mm*1.7mm.

■ **PACKAGING INFORMATION**

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YBSM40005 THRU YBSM4010	F1	Approximate 0.35	1800	3600	25200	13" Reel

■ **CHARACTERISTICS (TYPICAL)**

FIG1: I_o - T_c Curve

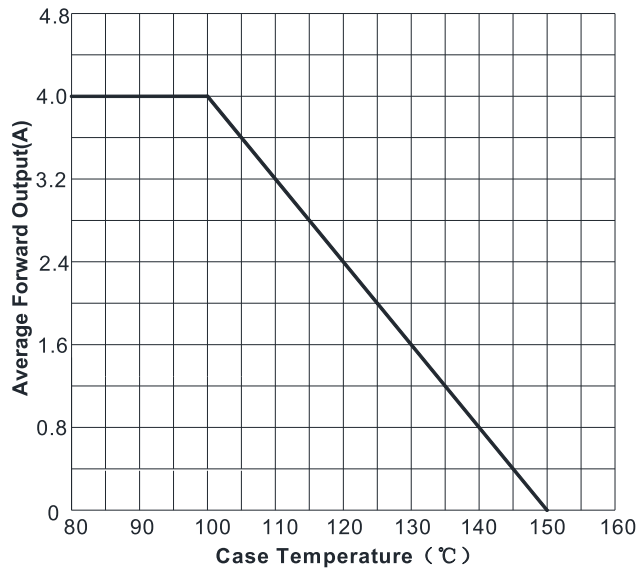


FIG2: Surge Forward Current Capability

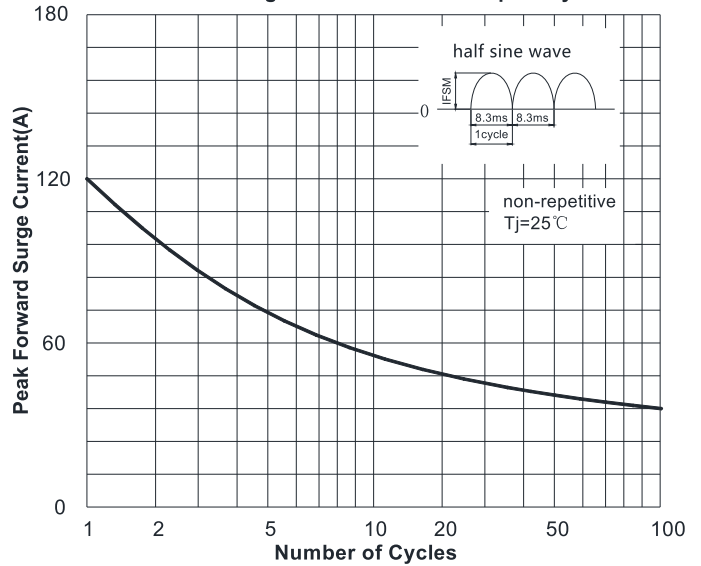


FIG3: Typical Forward Voltage

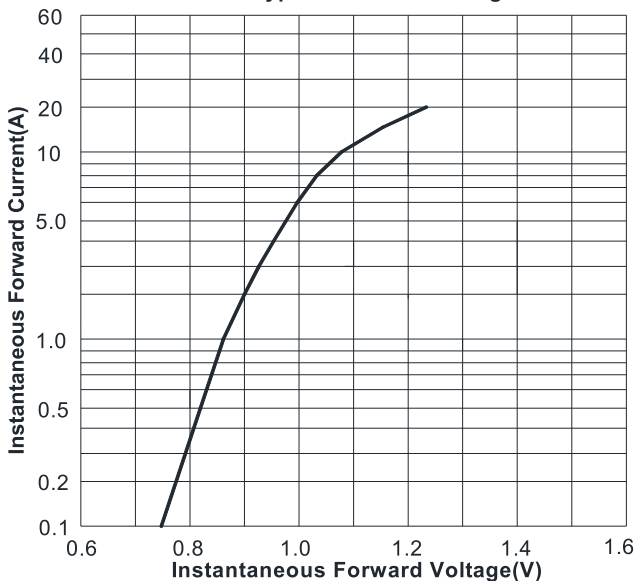
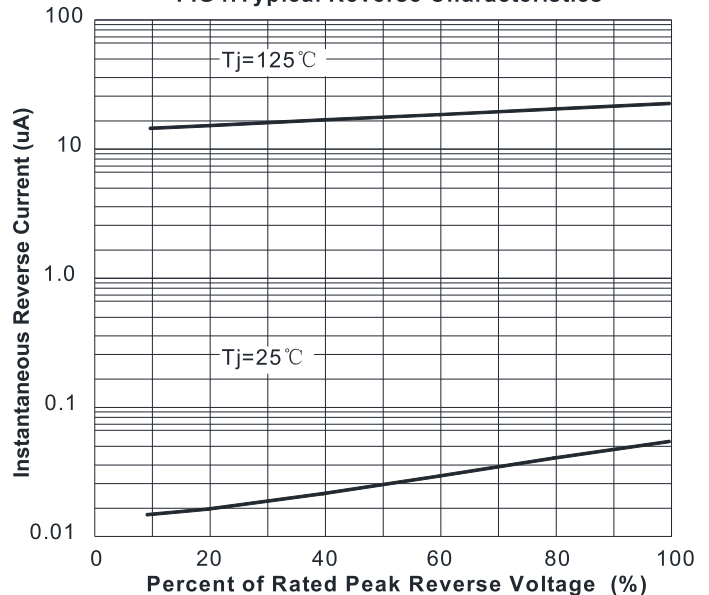
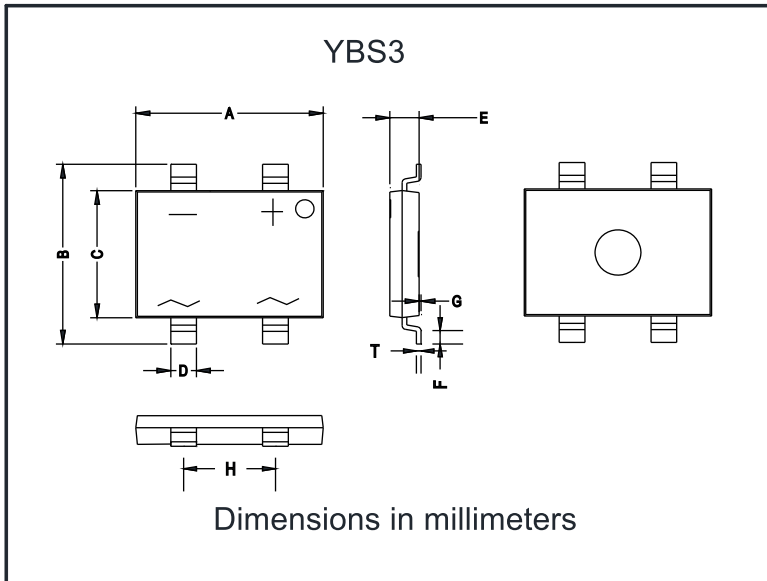


FIG4: Typical Reverse Characteristics

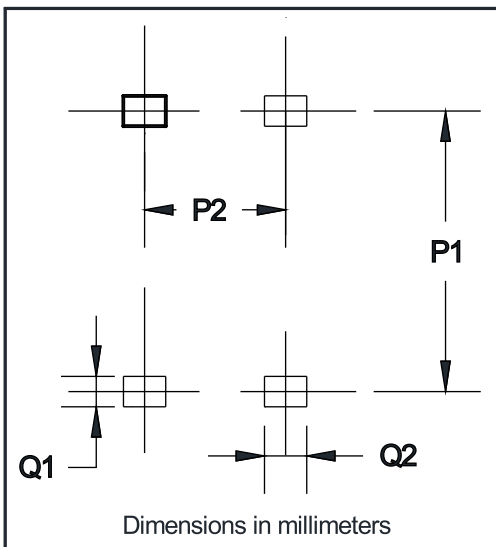


■ **OUTLINE DIMENSIONS**



YBS3		
Dim	Min	Max
A	10.00	10.40
B	9.70	10.10
C	6.80	7.20
D	1.3	1.5
E	1.4	1.8
F	0.5	1.1
G	0	0.15
H	4.9	5.1
T	0.20	0.30

■ **SUGGESTED PAD LAYOUT**



YBS3	
Dim	Min
P1	9.25
P2	5.00
Q1	1.00
Q2	1.5