

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

PARAMETER	SYMBOL	UNIT	YBSM60005	YBSM6001	YBSM6002	YBSM6004	YBSM6006	YBSM6008	YBSM6010
Device marking code			YBSM60005	YBSM6001	YBSM6002	YBSM6004	YBSM6006	YBSM6008	YBSM6010
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, $T_c=80^{\circ}\text{C}$	I_O	A	6.0						
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, $T_j=25^{\circ}\text{C}$	IFSM	A	150						
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, $T_j=25^{\circ}\text{C}$			300						
Current squared time @1ms $\leq t \leq$ 8.3ms $T_j=25^{\circ}\text{C}$, Rating of per diode	I^2t	A ² s	93.4						
Storage temperature	T_{stg}	$^{\circ}\text{C}$	-55 ~ +150						
Junction temperature	T_j	$^{\circ}\text{C}$	-55 ~ +150						

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	YBSM60005	YBSM6001	YBSM6002	YBSM6004	YBSM6006	YBSM6008	YBSM6010
Maximum instantaneous forward voltage drop per diode	V_F	V	$I_{FM}=3.0\text{A}$	1.0						
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	μA	$T_j=25^{\circ}\text{C}$	5						
			$T_j=125^{\circ}\text{C}$	100						
Typical junction capacitance	C_j	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	50						

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

PARAMETER		SYMBOL	UNIT	YBSM60005	YBSM6001	YBSM6002	YBSM6004	YBSM6006	YBSM6008	YBSM6010
Typical Thermal Resistance	Between Junction and Ambient	$R_{\theta\text{-}A}$	$^\circ\text{C}/\text{W}$	55						
	Between Junction and Lead	$R_{\theta\text{-}L}$		10						
	Between Junction and Case	$R_{\theta\text{-}C}$		6						

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

■ **PACKAGING INFORMATION**

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
YBSM60005 THRU YBSM6010	F1	Approximate 0.36	1800	3600	25200	13" Reel

■ **CHARACTERISTICS (TYPICAL)**

FIG1: I_o - T_c Curve

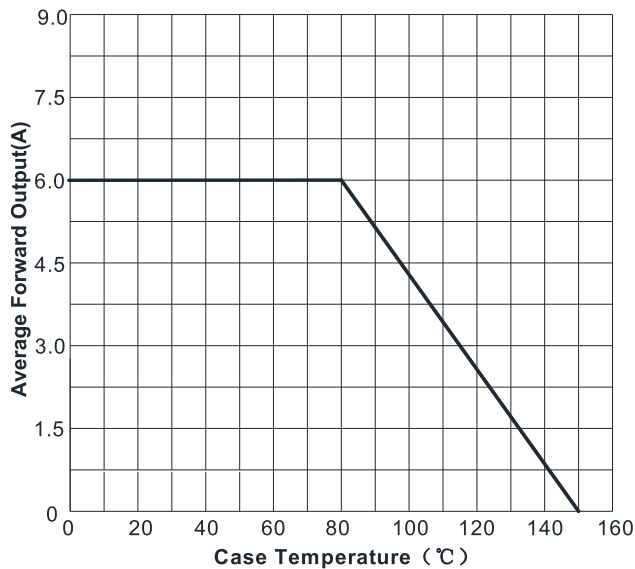


FIG2: Surge Forward Current Capability

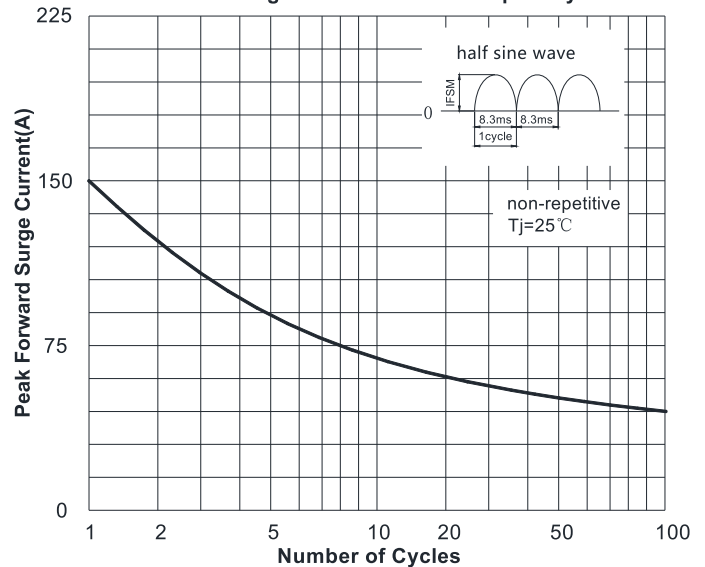


FIG3: Typical Forward Voltage

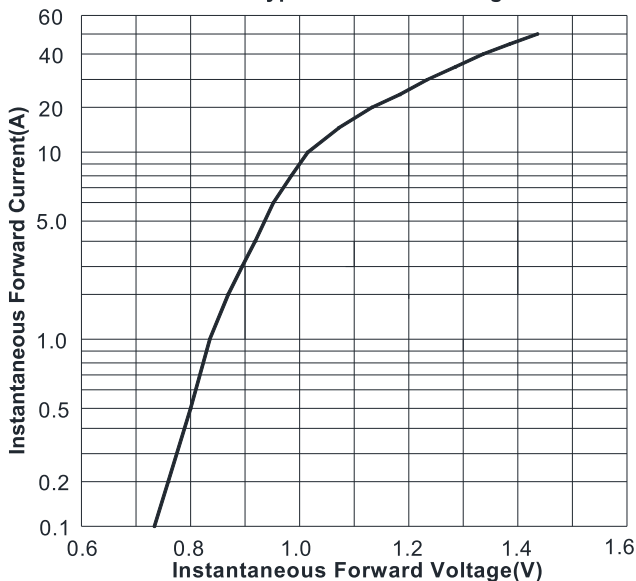
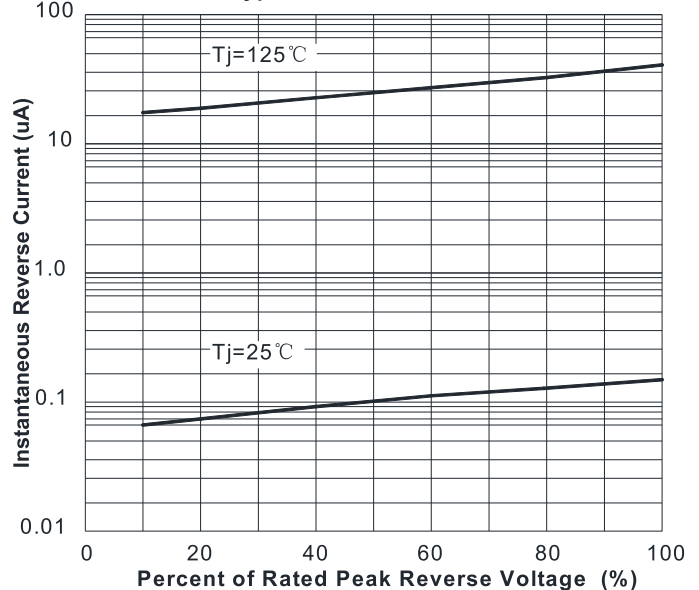
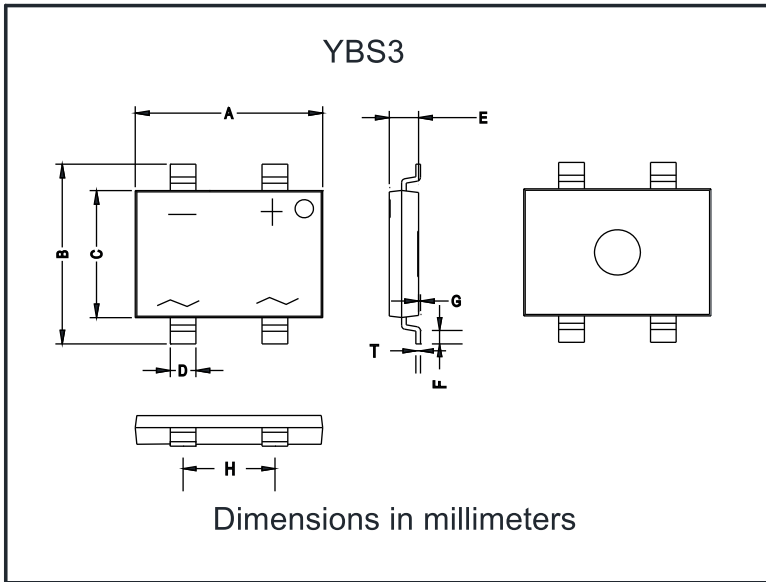


FIG4: Typical Reverse Characteristics

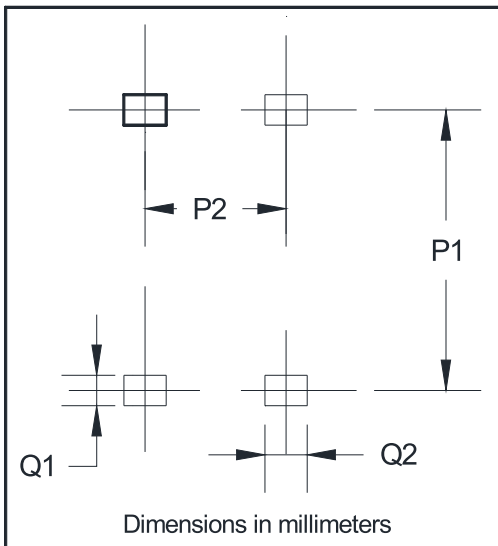


■ **OUTLINE DIMENSIONS**



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