

# LX005M<sub>THRU</sub> LX10M



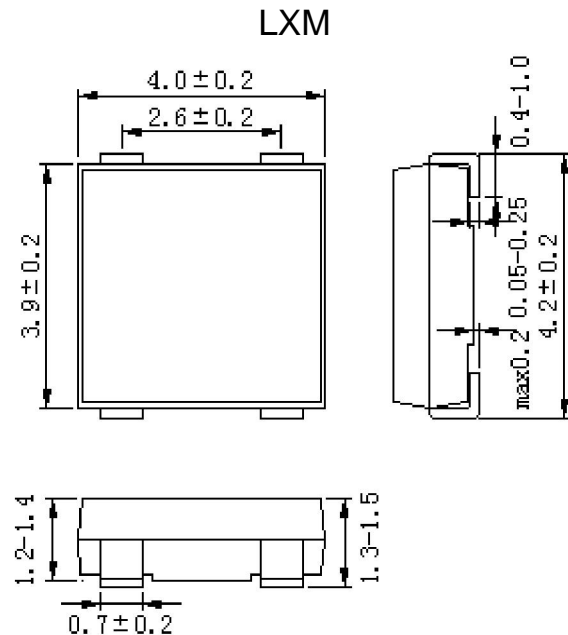
Single Phase 0.8 AMP. Glass Passivated Bridge Rectifiers

## Features

- Glass Passivated Die Construction
- Low Forward Voltage Drop
- Low Leakage Current
- High Forward Surge Capability
- Designed for Surface Mount Application
- Plastic Material - UL Flammability 94V -0

## Mechanical Data

- **Case:** TLM-J Molded Plastic
- **Terminals:** Solder plated, Solderable per J-STD-002B and JESD22-B102D
- **Polarity:** As Marked on body
- **Marking:** Type Number
- **Lead Free:** For ROHS/Leadfree Version



Dimensions in millimeters

## Maximum Ratings & Thermal Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

Items	Symbol	LX005M	LX010M	LX020M	LX040M	LX060M	LX080M	LX100M	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	0.5 <sup>1)</sup>							A
		0.8 <sup>2)</sup>							
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	20							A
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^\circ\text{C}$

1): Mounted on glass epoxy P.C.B with 1.2×1.5mm<sup>2</sup> pads.

2): Mounted on aluminum substrate P.C.B with 1.2×1.5mm<sup>2</sup> pads.

## Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

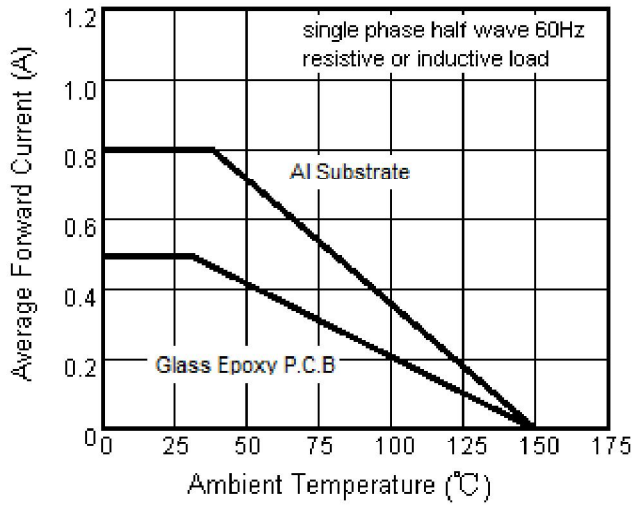
Items	Test conditions	Symbol	Min	Type	Max	
Instantaneous forward voltage	$I_F = 0.5\text{A}^{3)}$	$V_F$	-	0.95	1.1	V
Reverse current	$T_A = 25^\circ\text{C}$	$I_R$	-	-	5	$\mu\text{A}$
	$T_A = 125^\circ\text{C}$		-	-	100	

3): Pulse test: 300 $\mu\text{s}$  pulse width, 1% duty cycle.

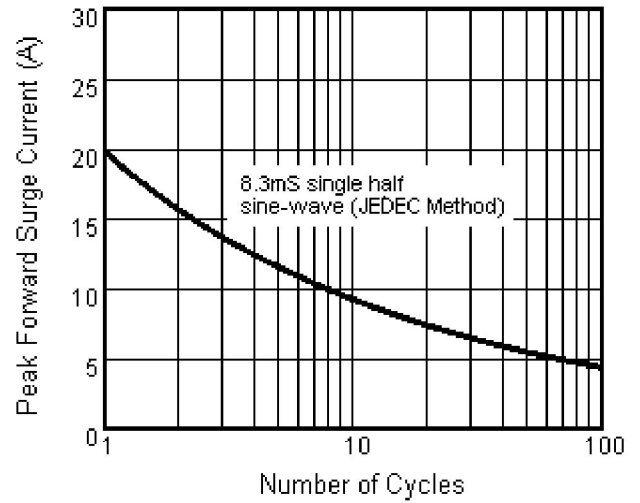
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## Characteristic Curves ( $T_A=25^\circ\text{C}$ unless otherwise noted)

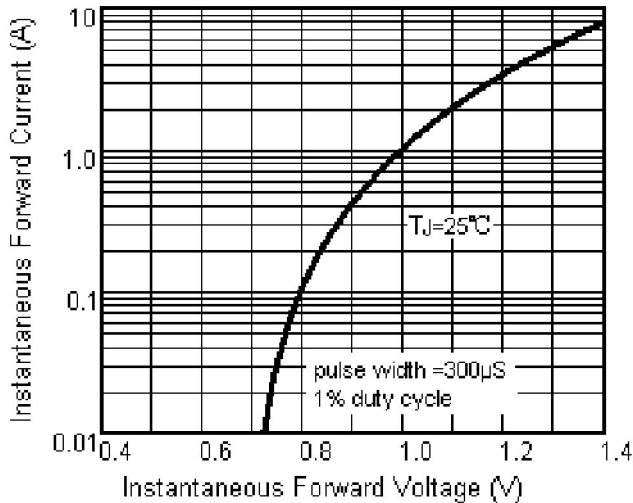
**Fig.1 Forward Current Derating Curve**



**Fig.2 Maximum Non-Repetitive Peak Forward Surge Current**



**Fig.3 Typical Instantaneous Forward Characteristics**



**Fig.4 Typical Reverse Characteristics**

