

**SINGLE-PHASE GLASS PASSIVATED  
SILICON BRIDGE RECTIFIER**  
VOLTAGE RANGE 50 to 1000 Volts CURRENT 6.0 Amperes

**FEATURES**

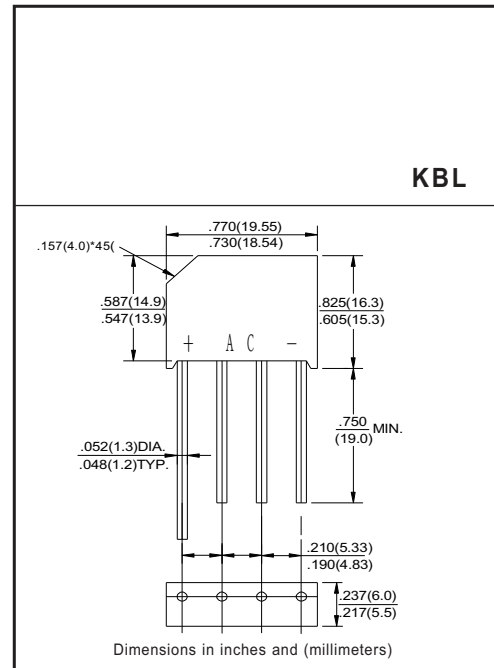
- \* Silver-plated copper leads
- \* Surge overload rating: 150 amperes peak
- \* Low leakage
- \* Mounting position: Any
- \* Low forward voltage

**MECHANICAL DATA**

- \* Epoxy: Device has UL flammability classification 94V-0

**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25 °C ambient temperature unless otherwise specified.  
resistive or inductive load.



**MAXIMUM RATINGS (@ TA=25 °C unless otherwise noted)**

RATINGS	SYMBOL	KBL601	KBL602	KBL603	KBL604	KBL606	KBL608	KBL610	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Current at T <sub>C</sub> = 75 °C	I <sub>O</sub>	6.0							Amps
Peak Forward Surge Current 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I <sub>FSM</sub>	150							Amps
Current Squared Time	I <sup>2</sup> T	93.3							A <sup>2</sup> S
Typical Thermal Resistance (Note 1)	R <sub>θJC</sub>	3.1							°C/W
	R <sub>θJA</sub>	8.6							
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-55 to + 150							°C

**ELECTRICAL CHARACTERISTICS (@TA=25 °C unless otherwise noted)**

CHARACTERISTICS	SYMBOL	KBL601	KBL602	KBL603	KBL604	KBL606	KBL608	KBL610	UNITS
Maximum Instantaneous Forward Voltage at 6.0A DC	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	@T <sub>A</sub> = 25 °C							uAmps
		@T <sub>A</sub> = 150 °C							

NOTES : 1. Thermal Resistance : Heat-sink case mounted or if PCB mounted.  
2. "ROHS compliant"  
3. Measured at 1MHz and applied reverse voltage of 4.0 volts.

2020-04/10  
REV:A

# RATING AND CHARACTERISTICS CURVES (KBL601 THRU KBL610)

FIG.1-MAXIMUM FORWARD SURGE CURRENT

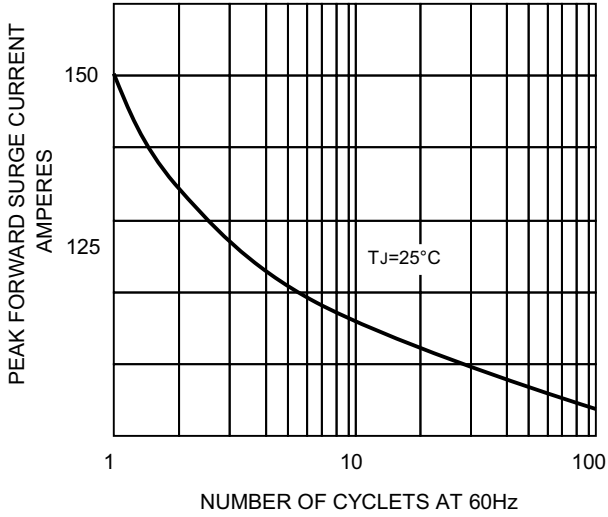


FIG.1-DERATING CURVE  
OUTPUT RECTIFIED CURRENT

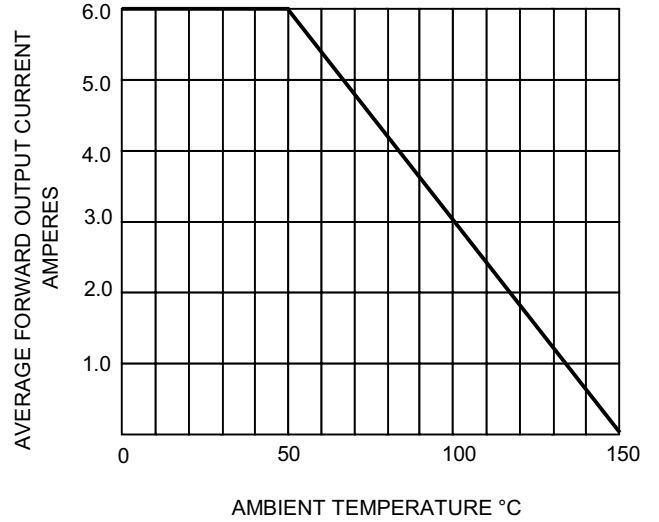


FIG.4-TYPICAL FORWARD CHARACTERISTICS

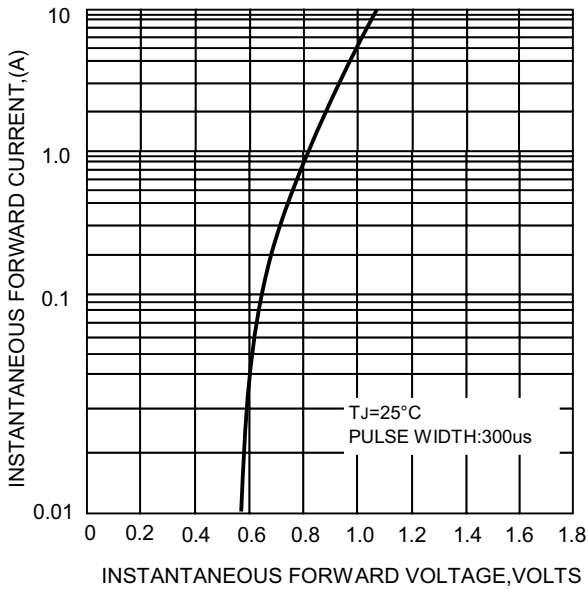
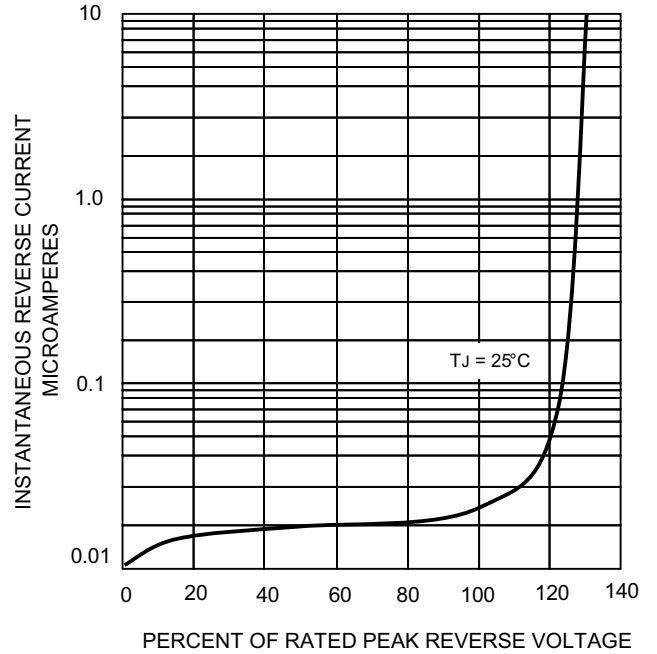
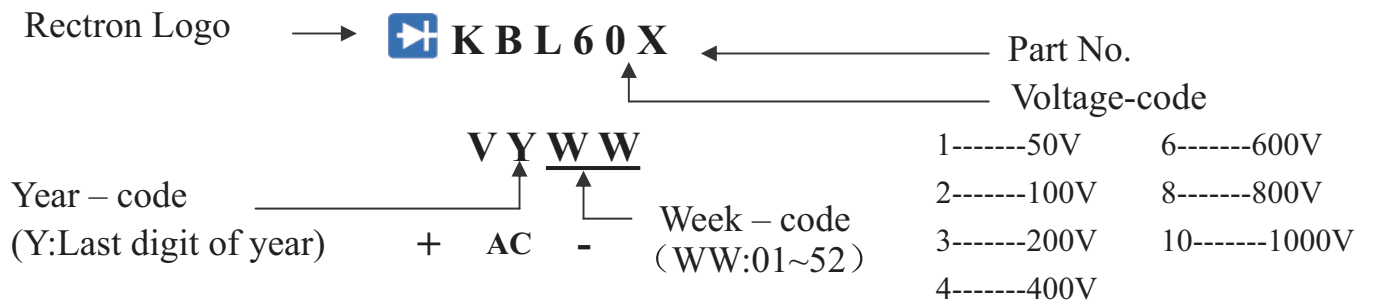


FIG.4- TYPICAL REVERSE CHARACTERISTICS



## Marking Description



## PACKAGING OF DIODE AND BRIDGE RECTIFIERS

### TUBE PACK

PACKAGE	PACKING CODE	EA PER BOX	INNER BOX SIZE (mm)	CARTON SIZE (mm)	EA PER CARTON
KBL	-C	1,150	49*14.5*13.2	49.5*32.5*15.5	2,300

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