LITE-ON SEMICONDUCTORS

KBPC5004 thru KBPC5010

GLASS PASSIVATED BRIDGE RECTIFIERS

REVERSE VOLTAGE – 400 to 1000 Volts
FORWARD CURRENT – 50 Ampere

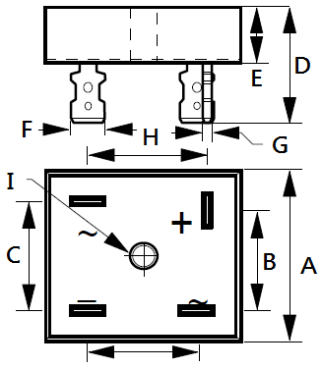
FEATURES

- Rating 400 to 1000V PRV
- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- The plastic material has UL flammability classification 94-0
- UL recognized file#E95060

MECHANICAL DATA

- Case Material: Mounted in the bridge encapsulation
- Polarity indicator: As marked on body
- Mounting : Hole for # 10 screw
- Weight: 24 grams

KBPC



KBPC		
Dim.	Min.	Max.
A	28.30	28.80
B	16.10	17.10
C	17.60	18.60
D	18.80	21.30
E	7.90	8.40
F	6.30	6.50
G	0.76	0.86
H	16.10	17.10
I	HOLE FOR NO. 10 SCREW	
	5.80	5.59
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25°C ambient temperature unless otherwise specified.

ABSOLUTE RATINGS

PARAMETER	SYMBOL	KBPC5004	KBPC5006	KBPC5008	KBPC5010	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	400	600	800	1000	V
Maximum DC Blocking Voltage	V_{DC}	400	600	800	1000	V
Average recified forward current 60Hz sine wave,R-load with heatsink Tc=62°C	Io	50				A
Peak Forward Surge Current 8.3ms single half sine-wave @ T_J = 25°C	I_{FSM}	480				A
Typical Junction Capacitance (Note 1)	C_J	180				pF
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150				°C

STATIC ELECTRICAL CHARACTERISTICS

PARAMETER	TEST CONDITIONS	SYMBOL	MAX.	UNIT
Maximum Forward Voltage at	25 A@ T_J = 25℃	V_F	1.1	V
Maximum DC Reverse Current at Rated DC Blocking Voltage @ T_J = 25°C		I_R	10	uA

THERMAL CHARACTERISTICS

THERMAL CHARACTERISTIC	SYMBOL	TYP.	UNIT
Typical Thermal Capacitance (Note 2)	$RthJ_C$	1	°C/W

Note :

(1) Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
(2) Thermal resistance junction to case, lead and ambient in accordance

REV.0 , SEP-2017, KBDI04

RATING AND CHARACTERISTIC CURVES
KBPC5004 thru KBPC5010

LITEON

FIG.1- FORWARD CURRENT DERATING CURVE

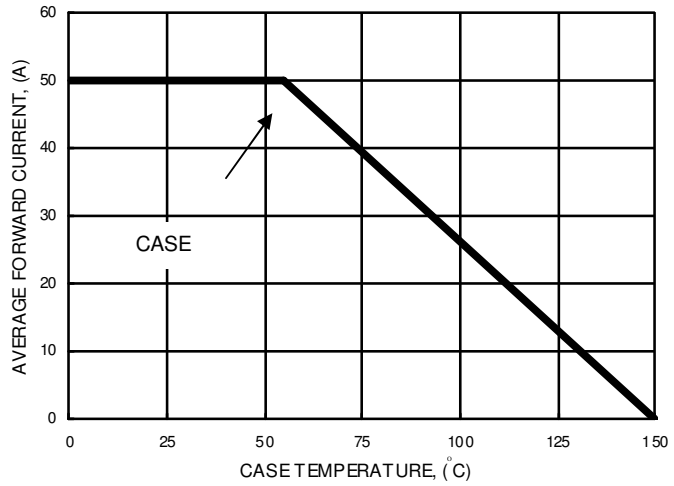


FIG.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

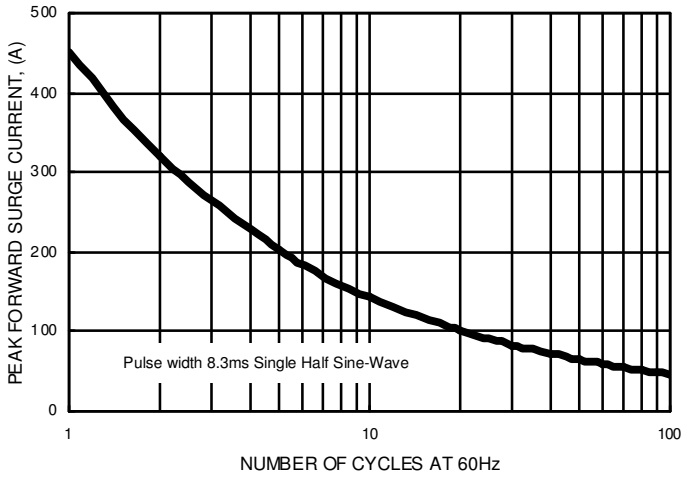


FIG.3- TYPICAL FORWORD CHARACTERISTICS

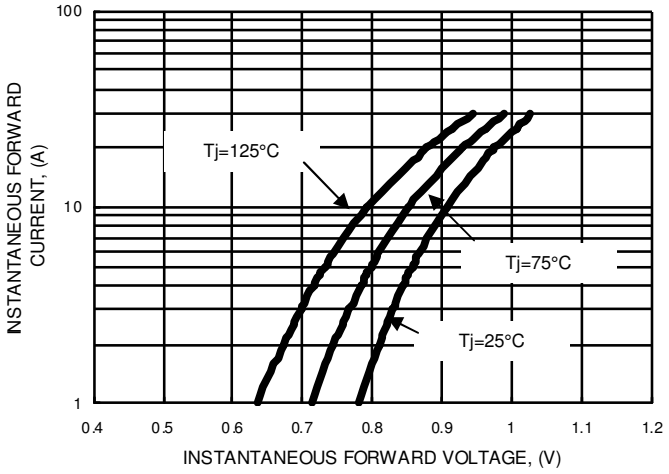


FIG.4- TYPICAL JUNCTION CAPACITANCE

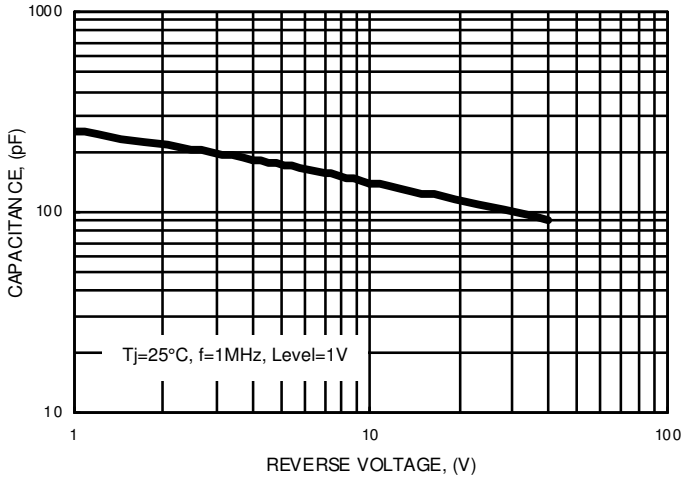
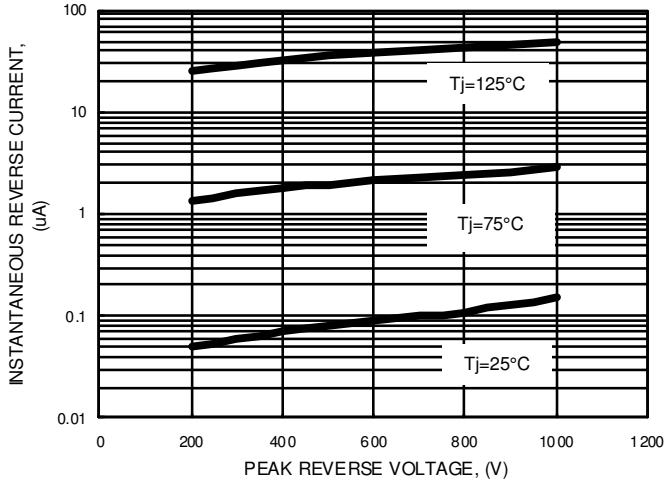


FIG.5- TYPICAL REVERSE CHARACTERISTICS



Important Notice and Disclaimer

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.

LSC makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does LSC assume any liability for application assistance or customer product design. LSC does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without express written approval of LSC.