# LITE ON SEMICONDUCTOR

**FEATURES** 

dissipation

• Rating to 1000V PRV • High efficiency

• Glass passivated chip junction

• UL recognized file # E95060

**MECHANICAL DATA** 

• Poarity : As marked on case Mounting : Hole for # 10 screw

## KBPC35005G(W) thru 3510G(W)

### **GLASS PASSIVATED BRIDGE RECTIFIERS**

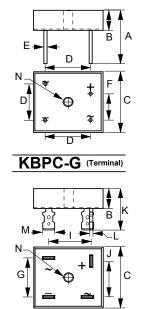
• Electrically isolated metal case for maximum heat

• Case : Mounted in the bridge encapsulation

• Weight : 0.85 ounces , 24.0 grams (terminal) : 0.74 ounces , 21.0 grams (wire)

REVERSE VOLTAGE - 50 to 1000 Volts FORWARD CURRENT - 35 Amperes

### KBPC-GW (Wire)



KBPC-G/KBPC-GW							
DIM.	MIN.	MAX.					
Α	31.80	-					
В	7.90 8.40						
С	28.30 28.8						
D	17.60	18.60					
Е	0.97	1.07					
F	10.90	11.90					
G	17.60	18.60					
Н	13.80	14.80					
I	16.10	17.10					
J	16.10	17.10					
K	18.80	21.30					
L	0.76	0.86					
М	6.30	6.50					
N	HOLE FOR NO. 10 SCREW						
	5.08	5.59					
All Dimensions in millimeter							

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

CHARACTERISTICS	SYMBOL	KBPC35 005G/W	KBPC35 01G/W	KBPC35 02G/W	KBPC35 04G/W	KBPC35 06G/W	6 KBPC35 08G/W	KBPC35 10G/W	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	VDC	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @Tc =Ta	I(AV)	35.0							А
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load	Ігѕм	400							А
Maximum forward Voltage at 17.5A DC	VF	1.1							V
	lR	5.0 500							uA
I <sup>2</sup> t Rating for fusing (t < 8.3ms), (Note 1)	l <sup>2</sup> t	660						A <sup>2</sup> S	
Typical Junction Capacitance per element (Note 2)	CJ				300				pF
Typical Thermal Resistance (Note 3, see Fig.1)	Rejc				3.0				°C/W
Operating Temperature Range	TJ	-55 to +150					°C		
Storage Temperature Range	Тѕтс			-	55 to +150	)			°C
NOTES : 1. Measured at non-repetitive, for greater than 1ms and less than 8.3ms REV. 4, Sep-2010, KE						-2010, KB	DI03		

2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3.Device mounted on 300mm x 300mm x 1.6mm Cu Plate Heatsink.

### RATING AND CHARACTERISTIC CURVES KBPC35005G(W) thru KBPC3510G(W)

### FIG.1 - FORWARD CURRENT DERATING CURVE FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT PEAK FORWARD SURGE CURRENT, AMPERES 20 450 AVERAGE FORWARD CURRENT AMPERES 400 350 15 300 250 10 200 150 5 100 SINGLE PHASE HALF WAVE 60Hz 50 RESISTIVE OR INDUCTIVE LOAD Single Half-Sine-Wave 0 0 50 2 100 5 20 20 40 60 80 100 120 140 10 CASE TEMPERATURE ,°C NUMBER OF CYCLES AT 60Hz FIG.3 - TYPICAL JUNCTION CAPACITANCE FIG.4 - TYPICAL FORWARD CHARACTERISTICS 1000 100 INSTANTANEOUS FORWARD CURRENT, (A) 10 CAPACITANCE, (pF) 1.0 100 0.1 TJ = 25°C PULSE WIDTH 300us TJ = 25 C, f= 1MHz 10 0.01 1 0.1 100 4 1 10 0 0.2 0.4 0.6 0.8 1.0 1.2 1.4 1.6 1.8 REVERSE VOLTAGE, VOLTS INSTANTANEOUS FORWARD VOLTAGE, VOLTS FIG.5 - TYPICAL REVERSE CHARACTERISTICS 100 ... INSTANTANEOUS REVERSE CURRENT ,(uA) 10 TJ = 125 C 1.0 50V-400V 600V-1000V 0.1 TJ = 25℃ 0.01 0 20 40 60 80 100 120 140 PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)

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