Single-Phase Bridge Rectifier

Features

- Low cost
- This series is UL recognized under component index, file number E127707
- Low thermal resistance
- High isolation voltage from case to leads
- High forward surge current capability
- High temperature soldering guaranteed:
  260℃/10 seconds, 0.375" (9.5mm) lead length at 5 lbs. (2.3kg) tension
- RoHS and REACH Compliance

Mechanical Data

Case:	Metal case
Polarity	Polarity symbols marked on case
Terminals:	Plated lead 0.04" (1.02mm) diameter
Mounting position:	Thru hole for #10 screw, 20in, -lbs. Torque max
Weight:	0.93 ounce, 26.4 gram

Maximum Ratings *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	KBPC25005W MB2505W	KBPC2501W MB251W	KBPC2502W MB252W	KBPC2504W MB254W	KBPC2506W MB256W	KBPC2508W MB258W	KBPC2510W MB2510W	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	50	100	200	400	600	800	1000	**V**	
VRMS	Max RMS Voltage	35	70	140	280	420	560	700	**V**	
VDC	Max DC Blocking Voltage	50	100	200	400	600	800	1000	**V**	
I(AV)	Max Average Forward Rectified Current	25							**A**	TC=55℃ (Note1,2)
IFSM	Peak Forward Surge Current	300							**A**	JEDEC method
TJ,TSTG	OperatingStorage Temperature Range	-65 to +150, -65 to +150							℃	
I2t	Rating for Fusing	373							**A2s**	T<8.3mS

Electrical Characteristics *($T_{Ambient}$=25ºC unless noted otherwise)*

Symbol	Description	KBPC25005W MB2505W	KBPC250W MB251W	KBPC250W MB252W	KBPC250W MB254W	KBPC250W MB256W	KBPC250W MB258W	KBPC251W MB2510W	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.1							**V**	Drop per Bridge element 12.5A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	10							**μA**	TA=25℃
		1.0							**mA**	TA=100℃
RθJC	Typical Thermal Resistance	2.0							**℃/W**	Note 1,2
VISO	Isolation Voltage from case to leads	2500							**VAC**	

Note:

1. Unit mounted on 5" x 6" x 4.9" (12.8 X 15.2 X 12.4cm) Al. Plate
2. Bolt down on heat-sink with silicon thermal compound between bridge and mounting sutfae for maximum heat transfer efficiency with #10 screw.

KBPC25005W~KBPC2510W/MB2505W~MB2510W

RATINGS AND CHARACTERISTIC CURVES KBPC25005W~KBPC2510W/MB2505W~MB2510W

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

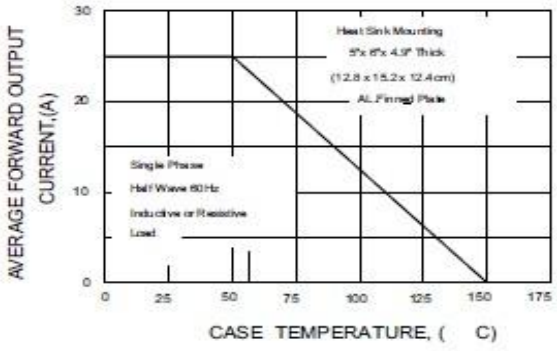


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

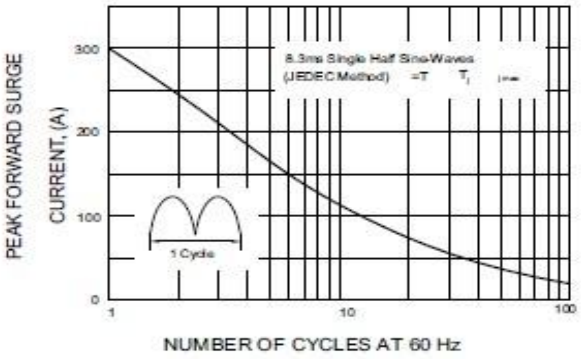


FIG.3-TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

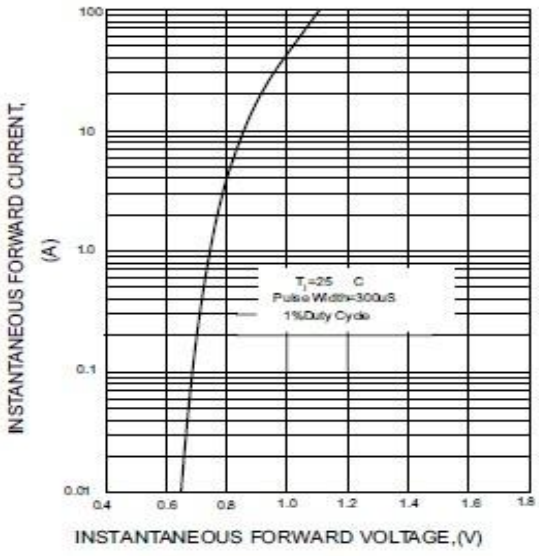


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

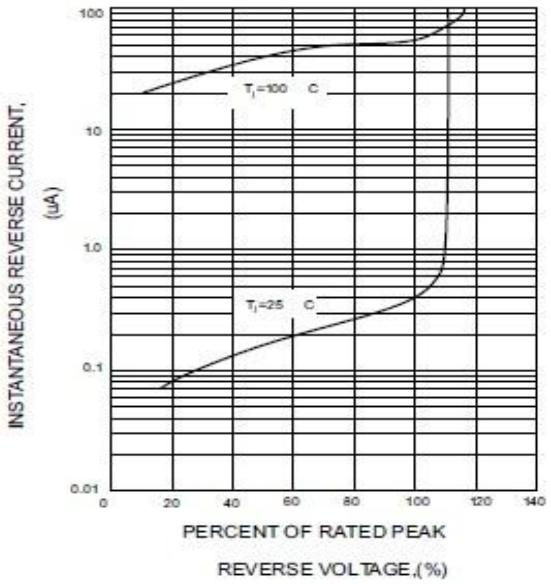


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

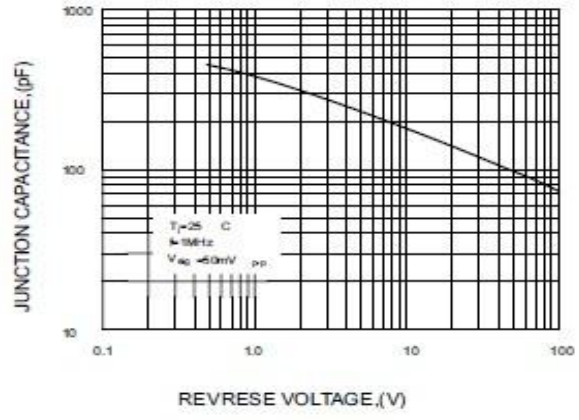
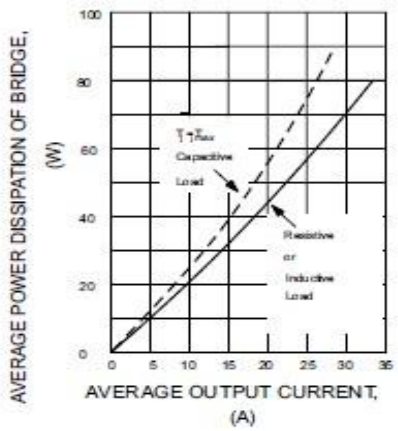
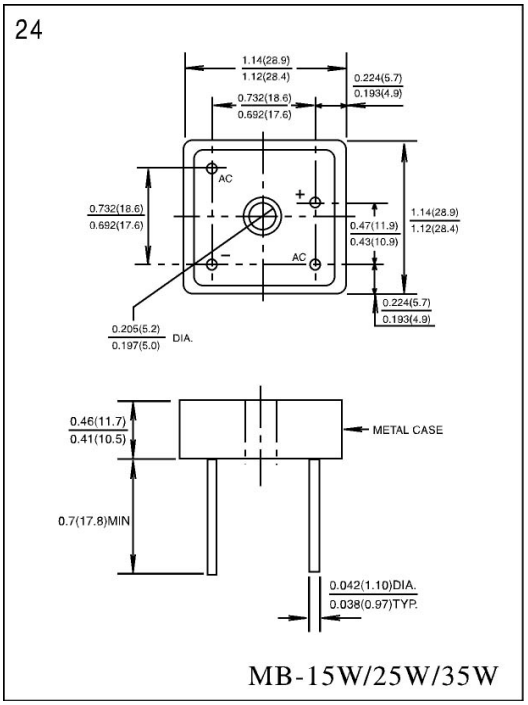


FIG.6-MAXIMUM POWER DISSIPATION



KBPC25005W~KBPC2510W/MB2505W~MB2510W

Dimensions in inches (mm)



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