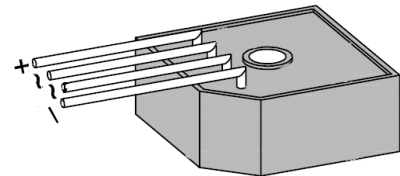


40A Single-Phase in-line Bridge Rectifier

Features

- Low Forward Voltage Drop
- High Current Capability, High Reliability
- High Surge Current Capability
- Designed for Saving Mounting Space



KBPCS
(Plastic Case with Metal Heat Sink)

Mechanical Data

Case:	KBPCS, molded plastic with heatsink internally mounted in the bridge encapsulation
Terminals:	Plated leads solderable per MIL-STD-202, method 208
Polarity:	As marked on body
Mounting:	Through hole with #10 screw
Mounting Torque:	23 cm-kg (20 in-lbs) Max.
Weight:	21grams

Maximum Ratings And Electrical Characteristics ($T_{amb}=25^{\circ}C$)

Symbol	Description	KBPC40-005S	KBPC40-01S	KBPC40-02S	KBPC40-04S	KBPC40-06S	KBPC40-08S	KBPC40-10S	Unit	Conditions
VRRM	Max. Repetitive 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	
Io	Average Rectified Output Current	40							A	$T_A=60^{\circ}C$
IFSM	Non-Repetitive Peak Forward Surge Current	400							A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)

40A Single-Phase in-line Bridge Rectifier

KBPC40-005S – KBPC40-10S

Symbol	Description	KBPC40-005S	KBPC40-01S	KBPC40-02S	KBPC40-04S	KBPC40-06S	KBPC40-08S	KBPC40-10S	Unit	Conditions
V _{FM}	Forward Voltage per leg	1.1							V	I _o =20A
I _{RM}	Max. Reverse DC Current At Rated DC Blocking Voltage per leg	10							μA	T _C = 25°C
		500							μA	T _C = 125°C
I _t	Rating for Fusing (t<8.3ms)	664							A ² s	
C _J	Typical junction capacitance per leg	400							pF	f=1MHz V _R = 4V
R _{thJC}	Typical Thermal Resistance per leg	2.1							°C / W	Note
V _{iso}	RMS Isolation Voltage from Case to Leads	2500							V	
T _J ,T _{STG}	Operating Junction and Storage Temperature Range	-65 to +150							°C	

Note: Thermal Resistance junction to case, mounted on heatsink.

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

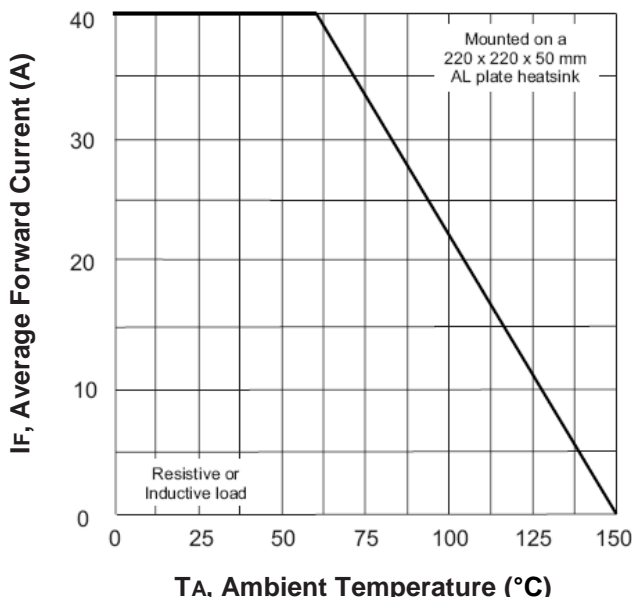
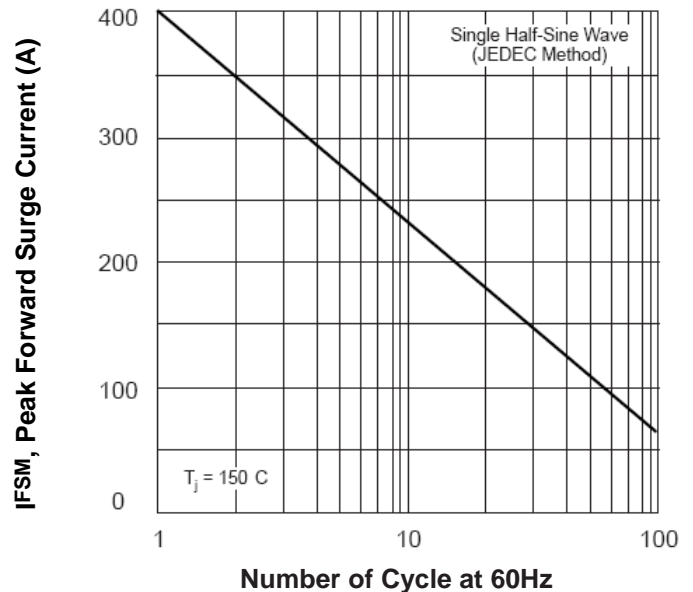


Fig.2-Max. Non-repetitive Peak Forward Surge Current Per Leg



40A Single-Phase in-line Bridge Rectifier

KBPC40-005S – KBPC40-10S

Fig.3-Typical Instantaneous Forward Characteristic Per Leg

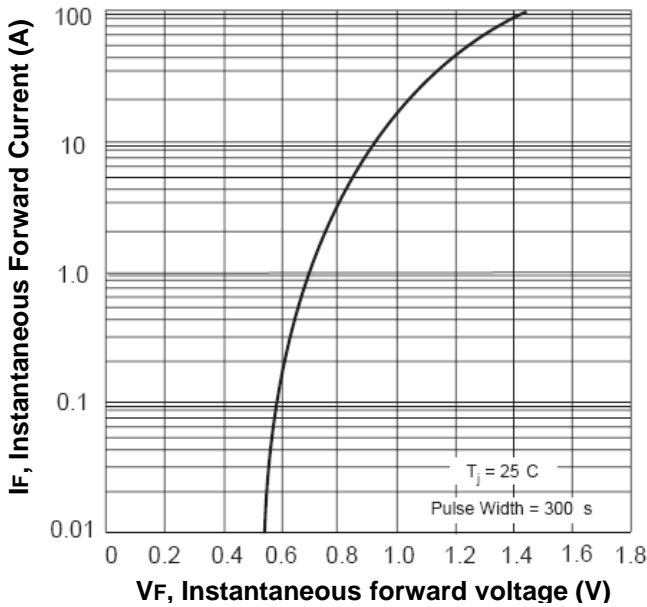


Fig.4-Typical Reverse Characteristics Per Leg

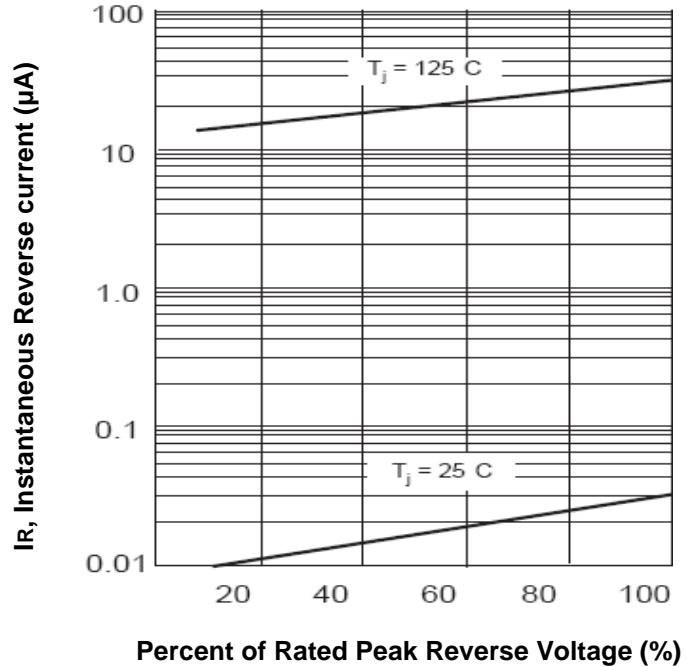
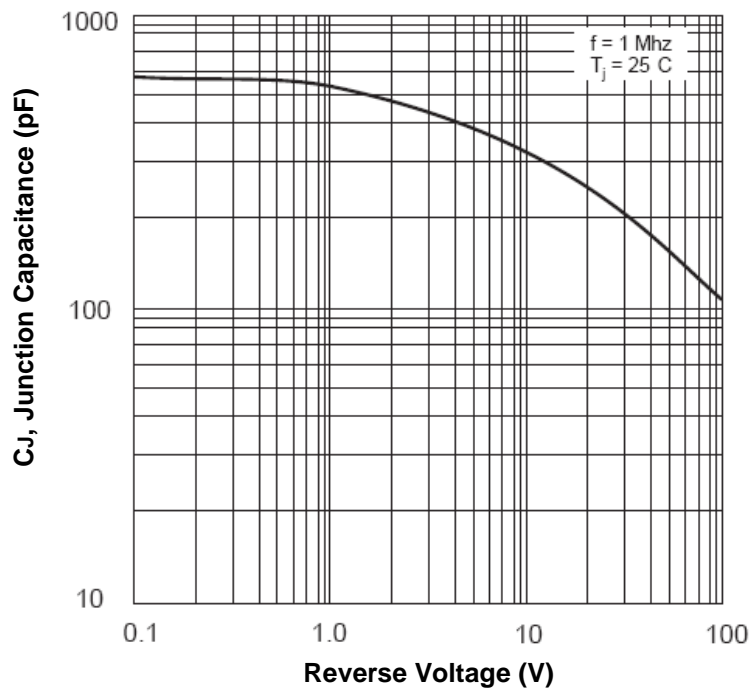


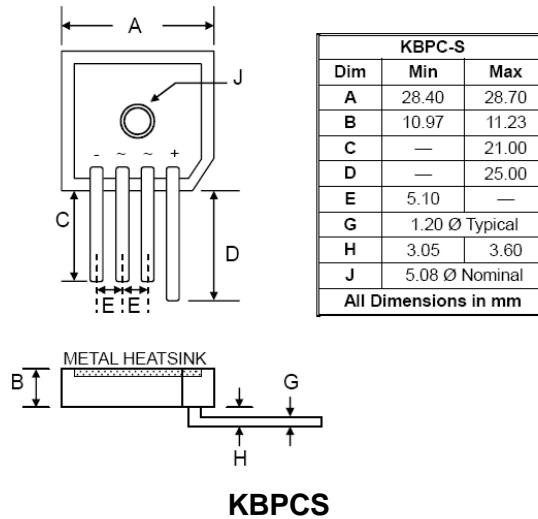
Fig.5-Typical Junction Capacitance Per Leg



40A Single-Phase in-line Bridge Rectifier

KBPC40-005S – KBPC40-10S

Dimensions in inch (mm)



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