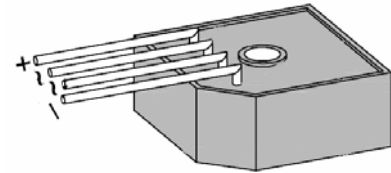


50A Single-Phase in-line Bridge Rectifier

Features

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



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	KBPC50-005S	KBPC50-01S	KBPC50-02S	KBPC50-04S	KBPC50-06S	KBPC50-08S	KBPC50-10S	Unit	Conditions
V_{RRM}	Max. Repetitive Peak Reverse Voltage	50	100	200	400	600	800	1000	V	
V_{RMS}	Max. RMS Voltage	35	70	140	280	420	560	700	V	
V_{DC}	Max. DC blocking voltage	50	100	200	400	600	800	1000	V	
I_o	Average Rectified Output Current	50							A	$T_A=60^{\circ}C$
I_{FSM}	Non-Repetitive Peak Forward Surge Current	450							A	8.3ms single half sine-wave superimposed on rated load (JEDEC method)

50A Single-Phase in-line Bridge Rectifier

KBPC50-005S – KBPC50-10S

Symbol	Description	KBPC50-005S	KBPC50-01S	KBPC50-02S	KBPC50-04S	KBPC50-06S	KBPC50-08S	KBPC50-10S	Unit	Conditions
V _{FM}	Forward Voltage per leg					1.1			V	I _o =25A
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 ² t	Rating for Fusing (t<8.3ms)					800			A ² s	
C _J	Typical junction capacitance per leg					400			pF	f=1MHz V _R = 4V
R _{thjc}	Typical Thermal Resistance per leg					1.6			°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

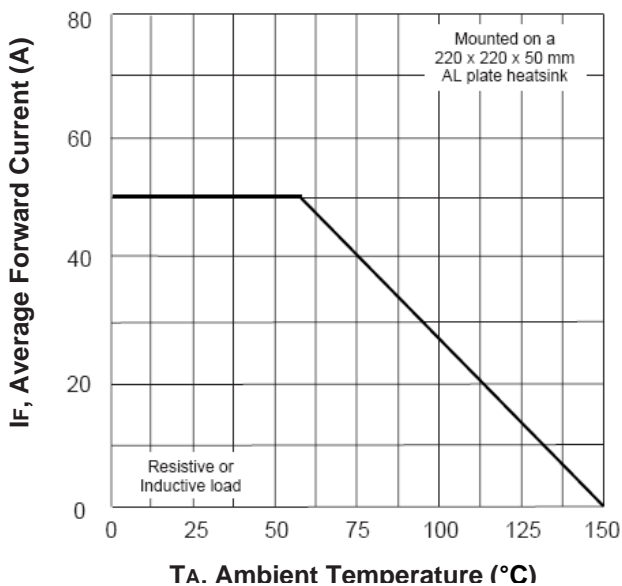
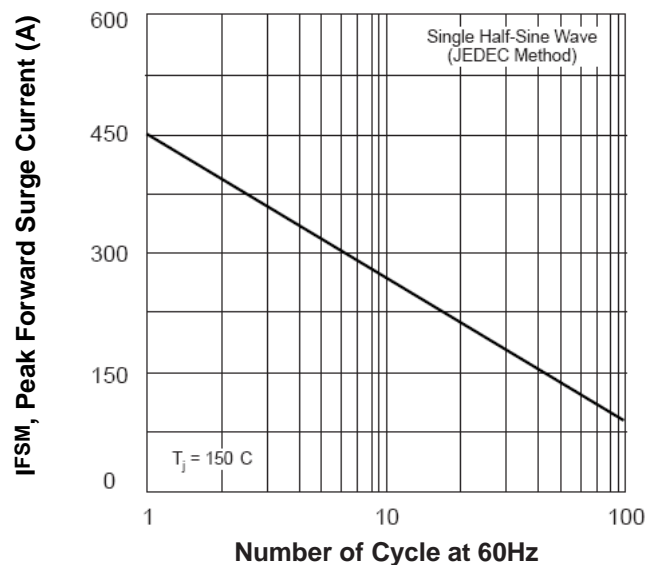


Fig.2-Max. Non-repetitive Peak Forward Surge Current Per Leg



50A Single-Phase in-line Bridge Rectifier

KBPC50-005S – KBPC50-10S

Fig.3-Typical Instantaneous Forward Characteristic Per Leg

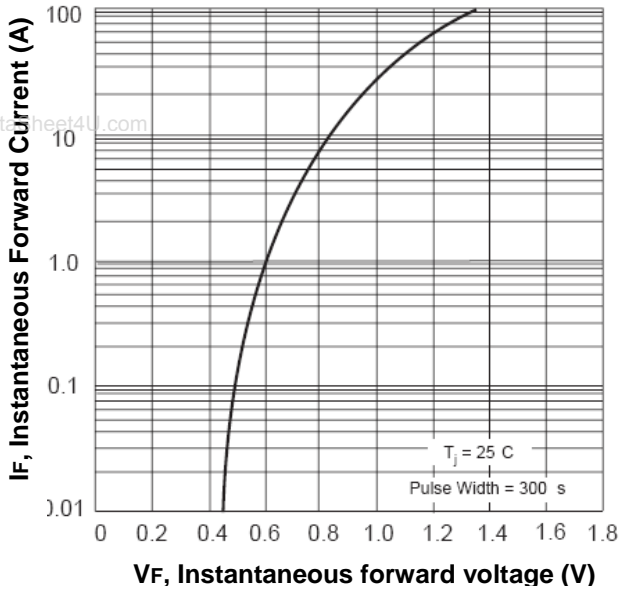


Fig.4-Typical Reverse Characteristics Per Leg

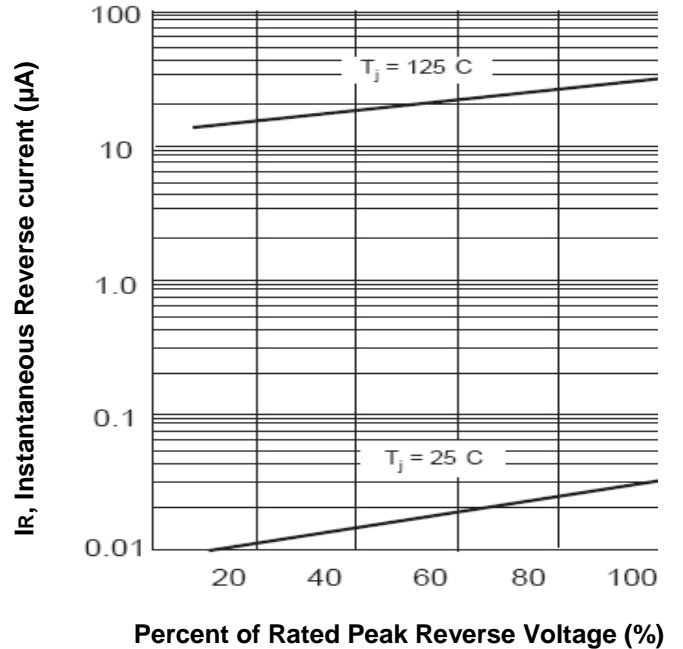
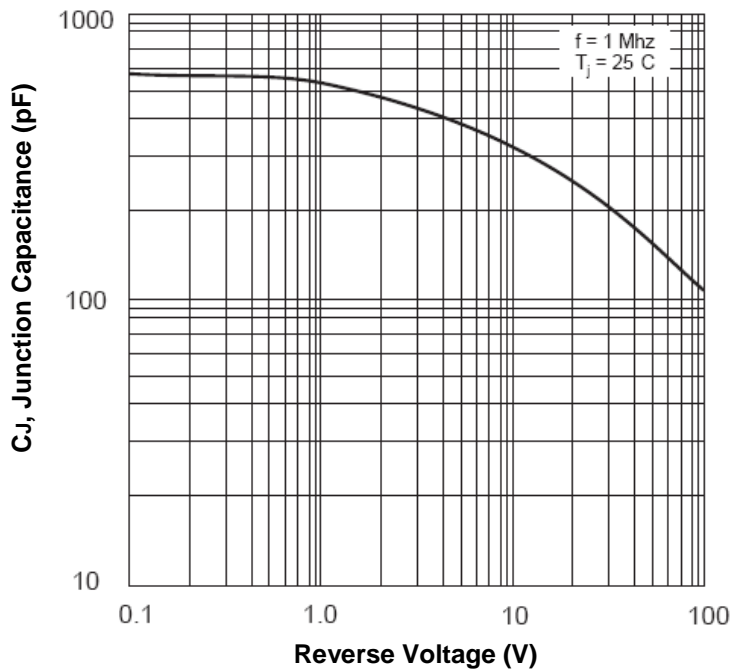


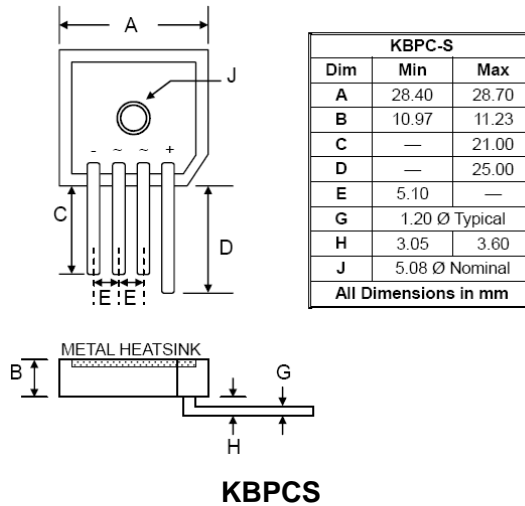
Fig.5-Typical Junction Capacitance Per Leg



50A Single-Phase in-line Bridge Rectifier

KBPC50-005S – KBPC50-10S

Dimensions in inch (mm)



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