

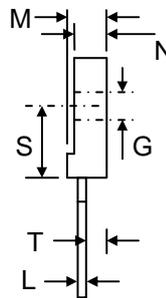
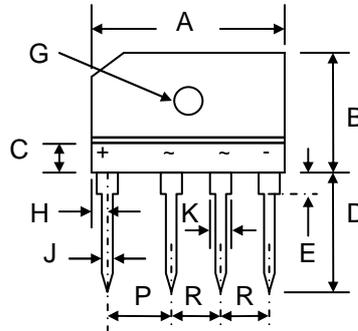
6.0A SINGLE-PHASE BRIDGE RECTIFIER

Features

- Diffused Junction
- Low Forward Voltage Drop
- High Current Capability
- High Reliability
- High Surge Current Capability
- Ideal for Printed Circuit Boards
-  Recognized File # E157705

Mechanical Data

- Case: KBJ-6, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: As Marked on Body
- Weight: 7.4 grams (approx.)
- Mounting Position: Any
- Mounting Torque: 10 cm·kg (8.8 in·lbs) Max.
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**



KBJ-6		
Dim	Min	Max
A	29.7	30.3
B	19.7	20.3
C	—	5.0
D	17.0	18.0
E	3.8	4.2
G	3.1Ø	3.4Ø
H	2.3	2.7
J	0.9	1.1
K	1.8	2.2
L	0.6	0.8
M	4.8	5.3
N	4.05	4.35
P	9.8	10.2
R	7.3	7.7
S	10.8	11.2
T	2.3	2.7
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Characteristic	Symbol	KBJ 6A	KBJ 6B	KBJ 6D	KBJ 6G	KBJ 6J	KBJ 6K	KBJ 6M	Unit
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_C = 110^\circ\text{C}$ (Note 1)	I_O	6.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	170							A
Forward Voltage per diode @ $I_F = 3.0\text{A}$	V_{FM}	1.0							V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	I_R	10							μA
At Rated DC Blocking Voltage @ $T_A = 125^\circ\text{C}$		250							
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JA}$	26							$^\circ\text{C/W}$
Typical Thermal Resistance per leg (Note 1)	$R_{\theta JC}$	3.4							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{STG}	-55 to +150							$^\circ\text{C}$

Note: 1. Device mounted on 75 x 75 x 1.6mm thick Al plate heatsink.
2. Device mounted on P.C.B. without heatsink.

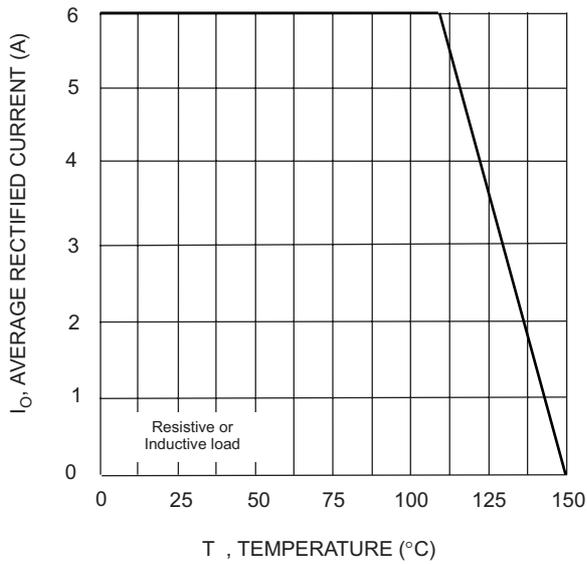


Fig. 1 Forward Current Derating Curve

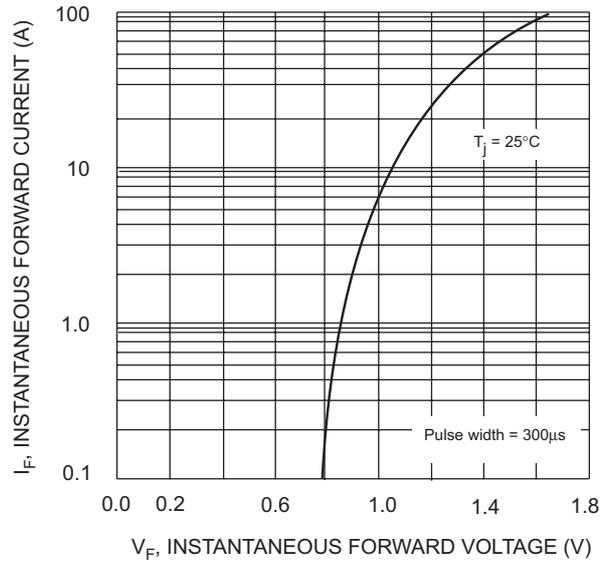


Fig. 2 Typical Fwd Characteristics

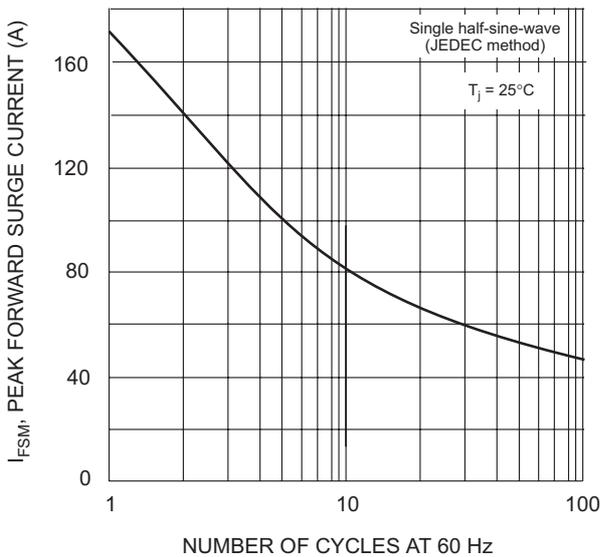


Fig. 3 Maximum Non-Repetitive Surge Current

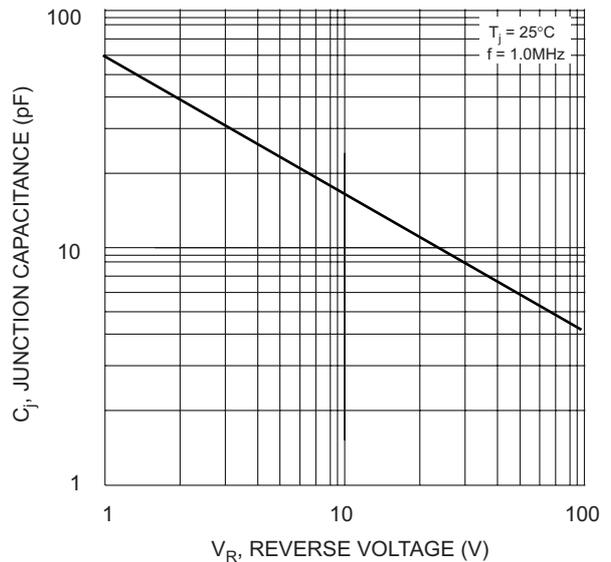
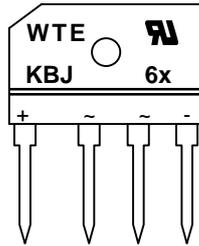


Fig. 4 Typical Junction Capacitance

MARKING INFORMATION



WTE = Manufacturer's Logo
 KBJ6x = Device Number
 x = A, B, D, G, J, K or M
 Polarity = As Marked on Body

PACKAGING INFORMATION

BULK

Tube Size L x W x H (mm)	Quantity (PCS)	Inner Box Size L x W x H (mm)	Quantity (PCS)	Carton Size L x W x H (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
475 x 40 x 7	15	490 x 145 x 135	750	510 x 305 x 160	1,500	17.0

Note: 1. Anti-static tube, water clear color.

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
KBJ6A	SIL Bridge	15 Units/Tube
KBJ6B	SIL Bridge	15 Units/Tube
KBJ6D	SIL Bridge	15 Units/Tube
KBJ6G	SIL Bridge	15 Units/Tube
KBJ6J	SIL Bridge	15 Units/Tube
KBJ6K	SIL Bridge	15 Units/Tube
KBJ6M	SIL Bridge	15 Units/Tube

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, KBJ6A-LF.**

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WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

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