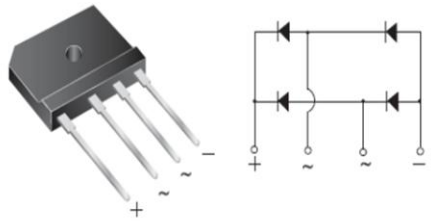
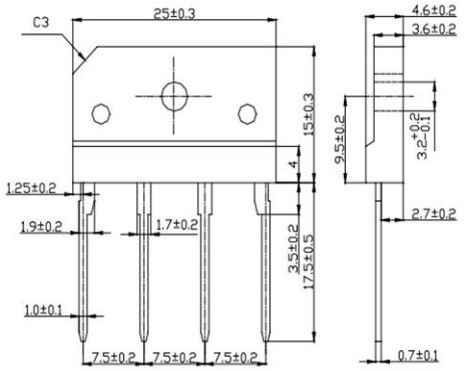
KBJ6A thru KBJ6M

Surface Mount Glass Passivated Standard Rectifiers
Reverse Voltage 50~1000V Forward Current 6A

Features

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ High case dielectric strength of 2500 VRMS
- ◆ Ideal for printed circuit boards
- ◆ Glass passivated chip junction
- ◆ Ultra surge current capability





Dimensions in millimeters

Mechanical Data

- ◆ Case: KBJ(3S) Molded plastic body

Terminals: Plated leads solderable per MIL-STD-750,Method 2026

- ◆ High temperature soldering guaranteed:

260℃/10 seconds, 0.375 (9.5mm) lead length,5lbs.(2.3kg) tension

- ◆ Polarity:As marked on body
- ◆ Mounting Torque:10 cm-kg (8.8 inches-lbs) max
- ◆ Recommecded Torque: 5.7 cm-kg (5 inches-lbs)

Typical Applications

General purpose use in ac-to-dc bridge full wave rectification for Monitor,TV,Printer,Switching Mode Power Supply,Adapter,Audio equipment,and Home Appliances applications

Maximum Ratings & Electrical Characteristics

Ratings at 25℃ **ambient temperature unless otherwise specified.**

Parameter	Symbol	KBJ6A	KBJ6B	KBJ6D	KBJ6G	KBJ6J	KBJ6K	KBJ6M	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified output current at 60Hz, sine wave R-load TC=110℃	$I_{F(AV)}$	6.0(1)							A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	180							A
Rating for fusig (t<8.3ms)	I^2t	120							A^2sec
Maximum instantaneous forward voltage drop per leg at3.0A	VF	1.00							V
Maximum DC reverse current at rated DC blocking voltage per leg TA=25℃	IR	5							μA
TA=125℃		250							
Typical thermal resistance per leg	$R_{\theta JA}$	26(2)							℃/W
	$R_{\theta JC}$	2.3(1)							
Dielectric strength (Terminals to case, AC 1 minute)	V_{ISO}	2000							V
Operating junction temperature range	TJ	-55 to +150							℃
Storage temperature range	T_{STG}	-55 to +150							℃

Notes:

(1) Unit case mounted on AL plate heatsink

(2) Unit mounted on P.C.B.with 0.5×0.5" (12×12mm) copper pads and 0.375" (9.5mm) lead length without heatsink

(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

RATINGS AND CHARACTERISTICS CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

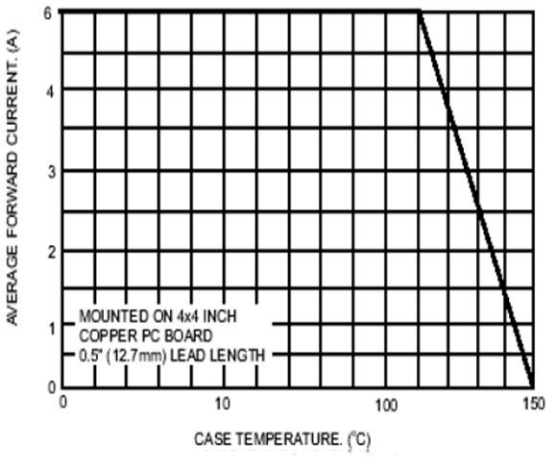


FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

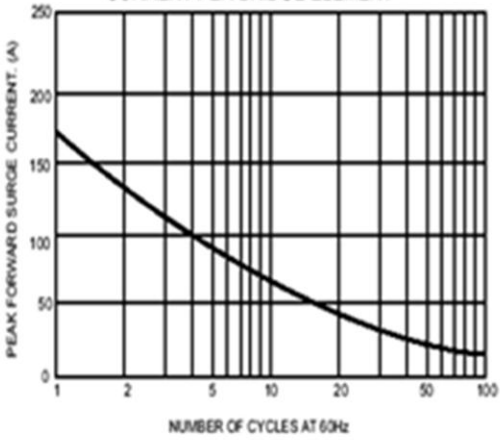


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

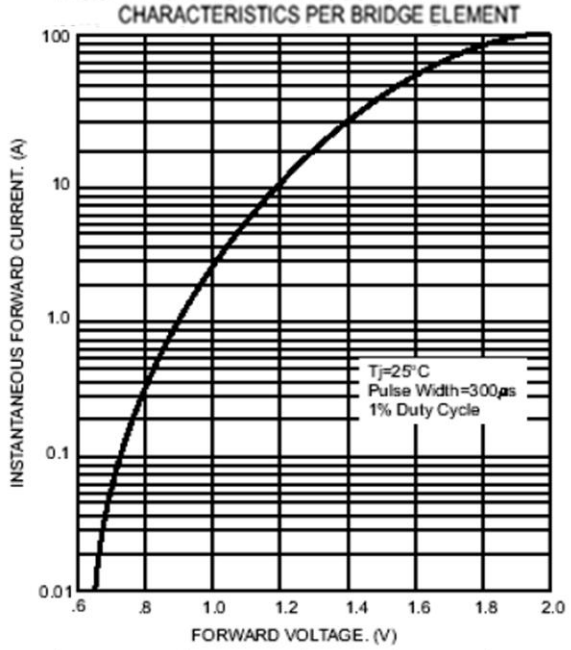


FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT