



MASTER INSTRUMENT CORPORATION

SINGLE-PHASE BRIDGE RECTIFIER KBU10A THRU KBU10M

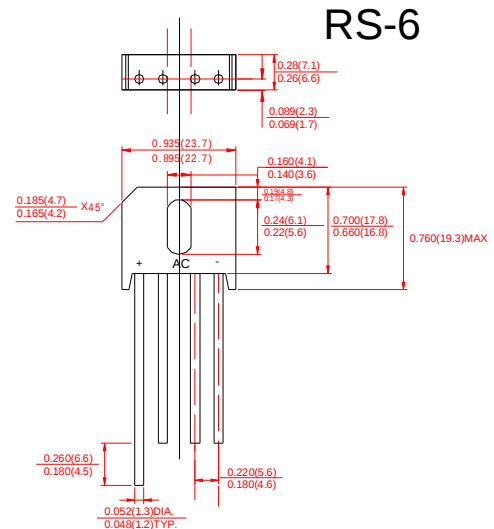
VOLTAGE RANGE 50 to 1000 Volts
CURRENT 10.0 Amperes

FEATURES

- Low cost
- This series is UL recognized under component index , file number E127707
- High forward surge current capability
- Ideal for printed circuit board
- High temperature soldering guaranteed:
260 °C/10 second, 0.375" (9.5mm) lead length at 5 lbs.(2.3kg) tension.

MECHANICAL DATA

- Case: Transfer molded plastic
- Terminal: Lead solderable per MIL-STD-202E method 208C
- Polarity: Polarity symbols marked on case
- Mounting: Thru hole for #6 screw, 5 in.-lbs torque max
- Weight: 0.27 ounce, 7.59 gram



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load derate current by 20%.

		SYMBOLS	KBU 10A	KBU 10B	KBU 10D	KBU 10G	KBU 10J	KBU 10K	KBU 10M	UNITS
Maximum Repetitive Peak Reverse Voltage		V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V _{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage		V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Rectified Output Current, at	T _C =50 °C (Note 2)	I _{I(AV)}	10.0						Amps	
	T _C =100 °C (Note 2)		8.0							
	T _A =45 °C (Note 3)		6.0							
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	350						Amps	
Rating for Fusing (t<8.3ms)		I ² t	373						A ² s	
Maximum Instantaneous Forward Voltage Drop per bridge element at 10.0A		V _F	1.0						Volts	
Maximum DC Reverse Current at rated DC blocking voltage per element	T _A =25 °C	I _R	5.0						μAmps	
	T _A =100 °C		1.0						mAmps	
Typical Junction Capacitance (Note 1)		C _J	200						pF	
Typical Thermal Resistance (Note 2)		R _{θJC}	5.0						°C/W	
Operating and Storage Temperature Range		T _J , T _{STG}	-55 to +150						°C	

NOTES:

- Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts.
- Unit mounted on 6.0"x5.5"x0.24" thick (15x14x0.6cm) Al. plate.
- Unit mounted in free air, no heatsink, P.C.B at 0.375" (9.5mm) lead length with 0.5"x0.5" (12x12cm) copper pads



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RATINGS AND CHARACTERISTIC CURVES KBU10A THRU KBU10M

FIG.1-DERATING CURVE FOR
OUTPUT RECTIFIED CURRENT

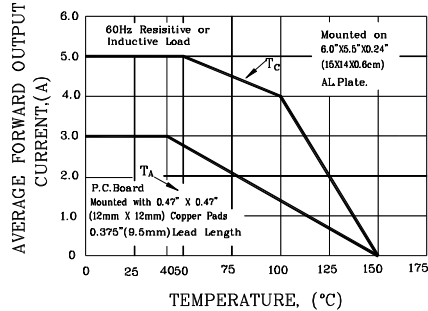


FIG.2-MAXIMUM NON-REPETITIVE PEAK
FORWARD SURGE CURRENT PER ELEMENT

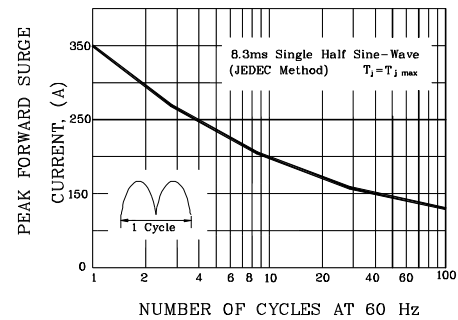


FIG.3-TYPICAL FORWARD CHARACTERISTICS
PER BRIDGE ELEMENT

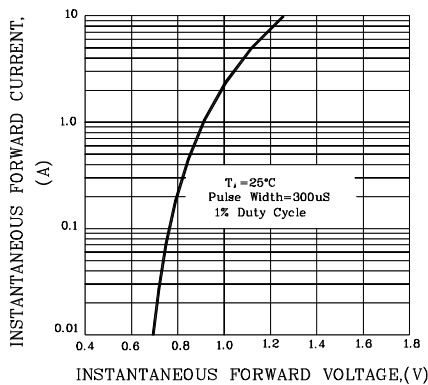


FIG.4-TYPICAL REVERSE CHARACTERISTICS
PER BRIDGE ELEMENT

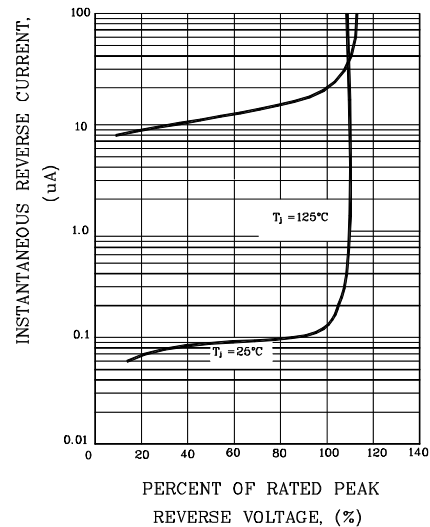


FIG.5-TYPICAL JUNCTION CAPACITANCE
PER BRIDGE ELEMENT

