KBPC15005 THRU KBPC1510

SINGLE-PHASE BRIDGE RECTIFIER

REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 15.0 Ampere

FEATURES

◆High overload surge current capability

◆Low thermal resistance

◆High isolation voltage from case to lugs

◆High temperature soldering guaranteed:

260°C /10 second, at 5 lbs. (2.3kg) tension

Mechanical Data

◆Case: Metal case

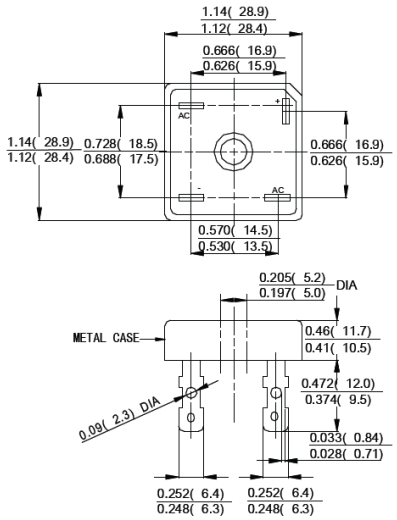
◆Terminal: Plated 0.25" (6.35mm) lug

◆Polarity: Polarity symbols marked on case

◆Mounting: Thru hole for #10 screw, 20 in,- lbs. Torque Max

◆Weight: 1.02 ounce, 29 gram

KBPC



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

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

PARAMETER		SYMBOL	KBPC 15005	KBPC 1501	KBPC 1502	KBPC 1504	KBPC 1506	KBPC 1508	KBPC 1510	UNIT
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage		V_{RRM}	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 TC=50℃(Note1,2)		$I_{(VA)}$	15							Amps
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	300							Amps
Rating for Fusing(t<8.3ms)		I^2t	373							A^2S
Maximum Instantaneous Forward Voltage at 7.5A		V_F	1.1							Volts
Maximum DC Reverse Current at rated DC blocking voltage	T_A=25℃	I_R	5.0							μAmps
	T_A=125℃		0.5							mAmps
Isolation Voltage from case to lugs		V_{ISO}	2500							V_{AC}
Typical Thermal Resistance (Note 1,2)		$R_{\theta JC}$	2.0							℃/W
Operating Temperature Range		T_J	-65 to +150							℃
Storage Temperature Range		T_{STG}	-65 to +150							℃

Note: 1. Unit mounted on 9”×3.5”×4.6”(23×9×11.8mm) Al. finned plate.

2. Bolt down on heat-sink with silicone thermal compound between bridge and mounting surface for maximum heat transfer efficiency with #10 screw.

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RATING AND CHARACTERISTIC CURVES KBPC15005 THRU KBPC1510

FIG.1-DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

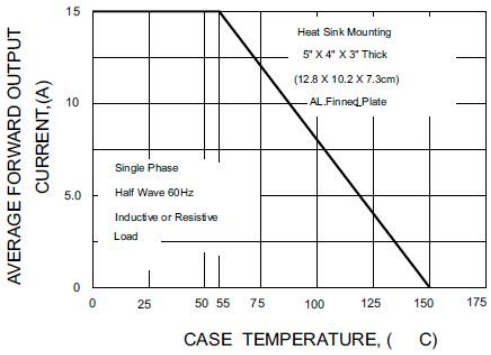


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER ELEMENT

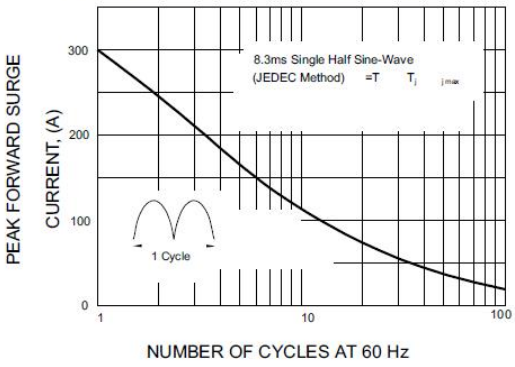


FIG.3-TYPICAL FORWARD CHARACTERICTICS PER BRIDGE ELEMENT

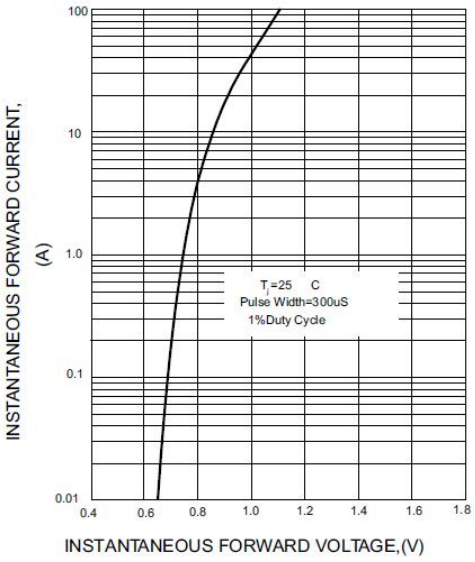


FIG.4-TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

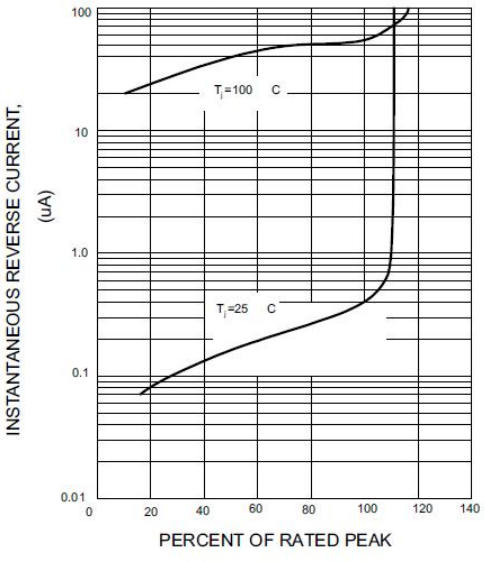


FIG.5-TYPICAL JUNCTION CAPACITANCE PER BRIDGE ELEMENT

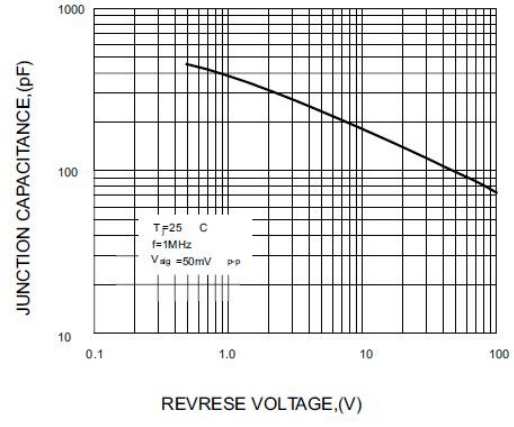
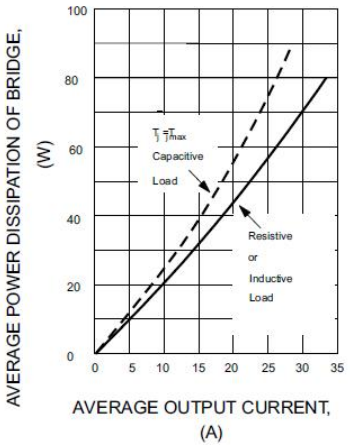


FIG.6-MAXIMUM POWER DISSIPATION



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.