

SPECIFICATION SHEET

SPECIFICATION SHEET NO.	N0729-KBP2100000L20A
DATE	July 29, 2021
REVISION	A0
DESCRIPTION	Thru Hole Single Bridge Rectifier, KBP Series, KBP210 L Type, 4 Pins, Reverse Voltage 1000V Max. Forward Current 2.0A Max. Operating Temp. Range -55°C ~+150°C, Package in Bulk, 500pcs/Box RoHS/RoHS III compliant
CUSTOMER	
CUSTOMER PART NUMBER	
CROSS REF. PART NUMBER	
ORIGINAL PART NUMBER	MDD KBP210 L
PART CODE	KBP32100000L20A

VENDOR APPROVE			
Issued/Checked/Approved			
DATE: July 29, 2021			

CUSTOMER APPROVE
DATE:

THRU HOLE BRIDGE RECTIFIER KBP SERIES

MAIN FEATURE

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Glass passivated junction
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed: 260 °C/10 seconds, 0.375" (9.5mm) lead length (2.3kg) tension



APPLICATION

- For printed circuit board

RFQ

[Request For Quotation](#)

PART CODE GUIDE

KBP	2100000	L	20A
1	2	3	4

- 1) **KBP**: Thru Hole Single Bridge Rectifier, KBP Series
- 2) **2100000**: Type code for original part number KBP210 L
- 3) **L**: Package code, In Bulk, 500pcs/Box.
- 4) **30A**: Specification code for Reverse Voltage 1000V Max. Forward Current 2.0A Max.

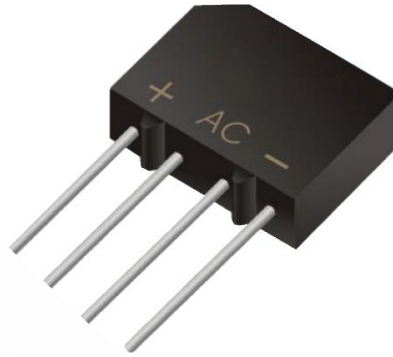
MORE ITEMS AVAILABLE

KBP2005000L205	KBP2010000L210	KBP2020000L220	KBP2040000L240	KBP2060000L260
KBP2080000L280	KBP2100000L20A			
KBP3005000L305	KBP3010000L310	KBP3020000L320	KBP3040000L340	KBP3070000L360
KBP3080000L380	KBP3100000L30A			

THRU HOLE BRIDGE RECTIFIER KBP SERIES

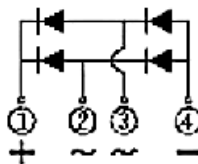
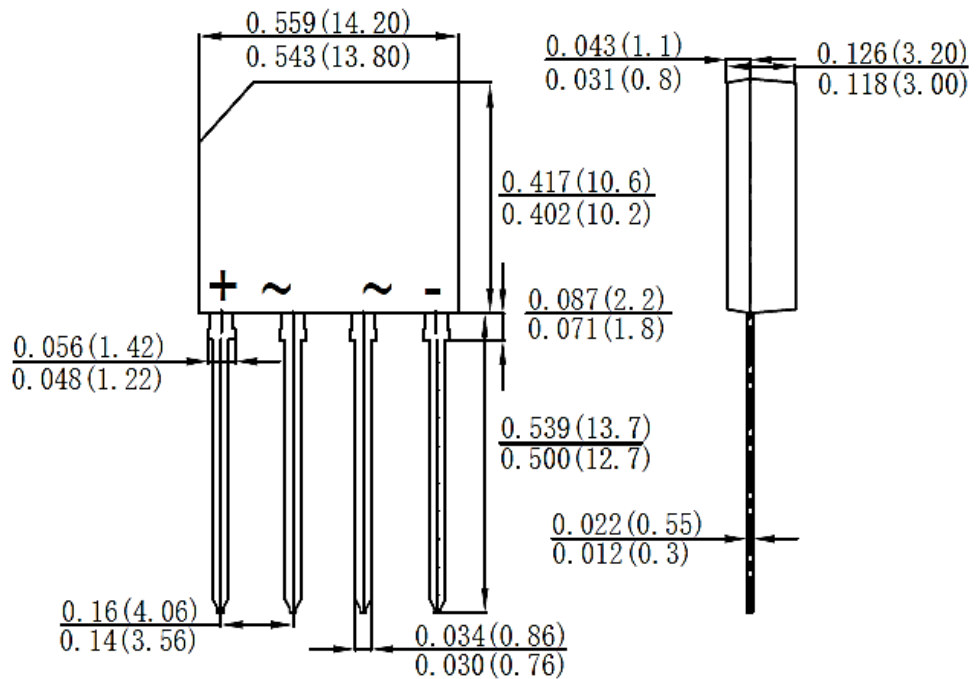
DIMENSION (Unit: Inch/mm)

Image for reference



Marking: KBP210

KBP



THRU HOLE BRIDGE RECTIFIER KBP SERIES

MECHANICAL DATA

Case	Terminals	Polarity	Mounting Position	Weight per piece
JEDEC KBP molded plastic body	Solder plated, Solderable per MIL-STD-750, Method 2026	Polarity symbol marking on body	Any	0.050 Ounce, 1.52 grams

MAX. RATING & CHARACTERISTICS

Parameter		SYMBOLS	VALUE			UNITS
			Min.	Typical	Max.	
Repetitive peak reverse voltage		V _{RRM}			1000	Volts
RMS voltage		V _{RMS}			700	Volts
DC blocking voltage		V _{DC}			1000	Volts
Average forward output rectified current at T _c = 50°C (see Note 3)		I _{AV}			2.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}		45		A
Instantaneous forward voltage at 2.0A		V _F			1.10	Volts
DC reverse current at rated DC blocking voltage	TA=25°C	I _R			5.0	μA
	TA=125°C				500	mA
Junction capacitance (Note 2)		C _J		40		pF
Thermal resistance (Note 3)		R _{QJA}		40		°C/W
Operating junction temperature range		T _J	-55		+150	
Storage temperature range		T _{STG}	-55		+150	°C

Note

1. Ratings at 25 C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Unit mounted on PCB with 0.47"*0.47" (12.0*12.0mm) copper pads , 0.375"(9.5mm) lead length

THRU HOLE BRIDGE RECTIFIER KBP SERIES

RELIABILITY

Number	Experiment Items	Experiment Method And Conditions	Reference Documents
1	Solder Resistance Test	Test 260°C± 5°C for 10 ± 2 sec. Immerse body into solder 1/16" ± 1/32"	MIL-STD-750D METHOD-2031.2
2	Solderability Test	230°C ±5°C for 5 sec.	MIL-STD-750D METHOD-2026.1 0
3	Pull Test	1 kg in axial lead direction for 10 sec.	MIL-STD-750D METHOD-2036.4
4	Bend Test	0.5Kg Weight Applied To Each Lead, Bending Arcs 90 °C ± 5 °C For 3 Times	MIL-STD-750D METHOD-2036.4
5	High Temperature Reverse Bias Test	TA=100°C for 1000 Hours at VR=80% Rated VR	MIL-STD-750D METHOD-1038.4
6	Forward Operation Life Test	TA=25°C Rated Average Rectified Current	MIL-STD-750D METHOD-1027.3
7	Intermittent Operation Life Test	On state: 5 min with rated IRMS Power Off state: 5 min with Cool Forced Air. On and off for 1000 cycles.	MIL-STD-750D METHOD-1036.3
8	Pressure Cooker Test	15 PSIG, TA=121°C, 4 hours	MIL-S-19500 APPENIOXC
9	Temperature Cycling Test	-55°C~+125°C; 30 Minutes For Dwelled Time 5 minutes for transferred time. Total: 10 cycles.	MIL-STD-750D METHOD-1051.7
10	Thermal Shock Test	0°C for 5 minutes., 100°C for 5minutes, Total: 10 cycles	MIL-STD-750D METHOD-1056.7
11	Forward Surge Test	8.3ms Single Sale Sine-wave One Surge.	MIL-STD-750D METHOD-4066.4
12	Humidity Test	TA=65°C, RH=98% for 1000 hours.	MIL-STD-750D METHOD-1021.3
13	High Temperature Storage life Test	150°C for 1000 Hours	MIL-STD-750D METHOD-1031.5

THRU HOLE BRIDGE RECTIFIER KBP SERIES

RATINGS AND CHARACTERISTIC CURVES (For Reference Only)

Fig.1 Forward Current Derating Curve

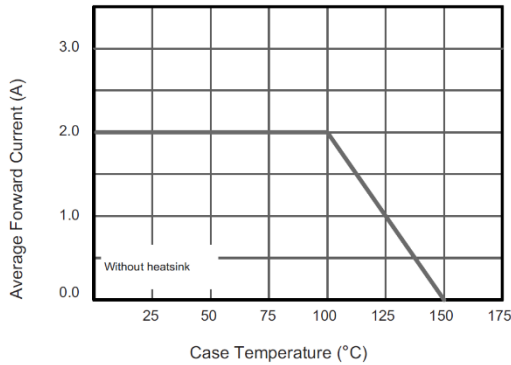


Fig.2 Typical Instantaneous Reverse Characteristics

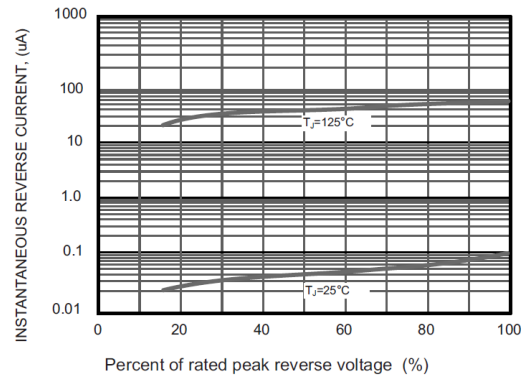


Fig.3 Typical Forward Characteristic

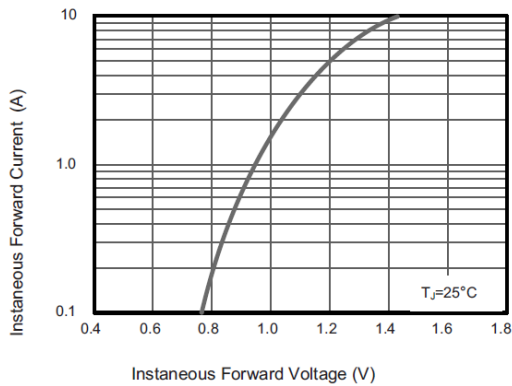


Fig.4 Typical Junction Capacitance

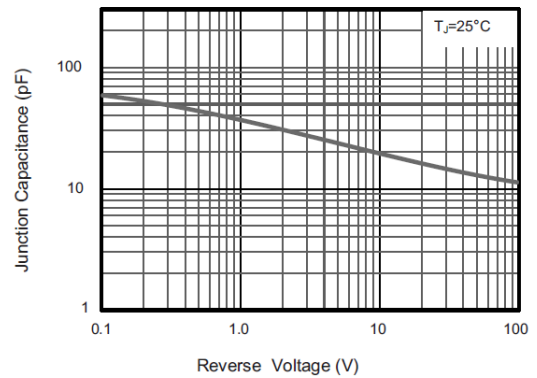


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

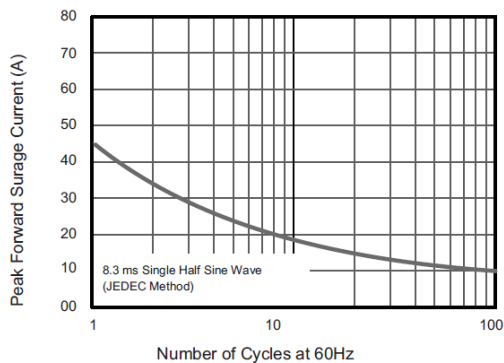
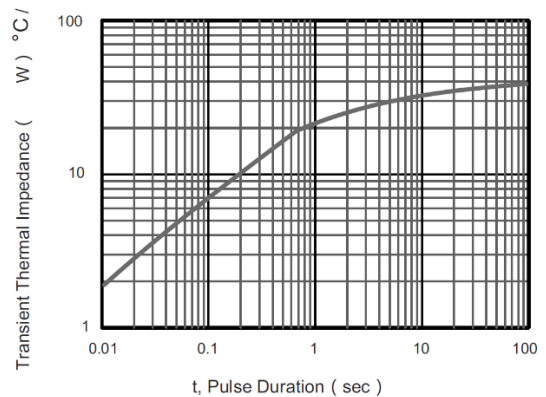


Fig.6- Typical Transient Thermal Impedance



THRU HOLE BRIDGE RECTIFIER KBP SERIES

PACKAGE

Part Type	Qty. Per Box (pcs)	Inner Box L*W*H (mm)	Carton size L*W*H (mm)	Qty. Per Carton (pcs)	G. W (kg)
KBP	500	300*110*32	315*245*190	5,000	8.25

DISCLAIMER

NextGen Component, Inc. reserves the right to make changes to the product(s) and or information contained herein without notice. No liability is assumed as a result of their use or application. No rights under any patent accompany the sale of any such product(s) or information