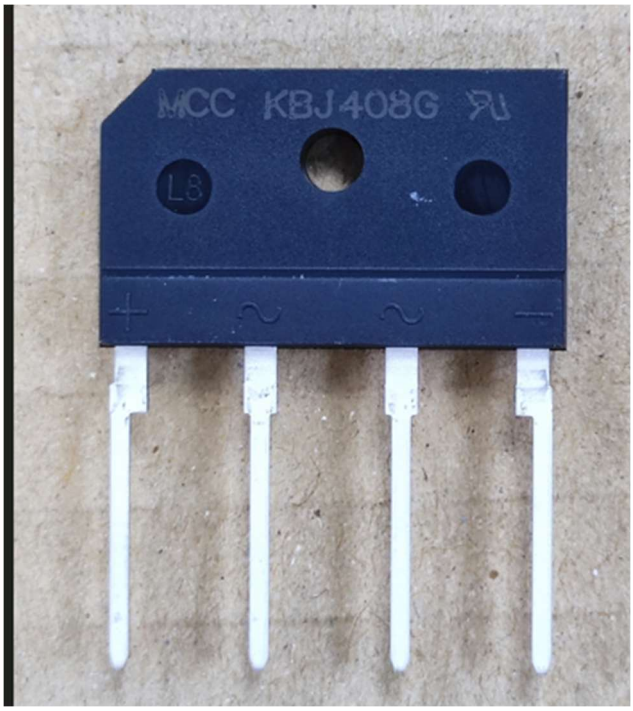
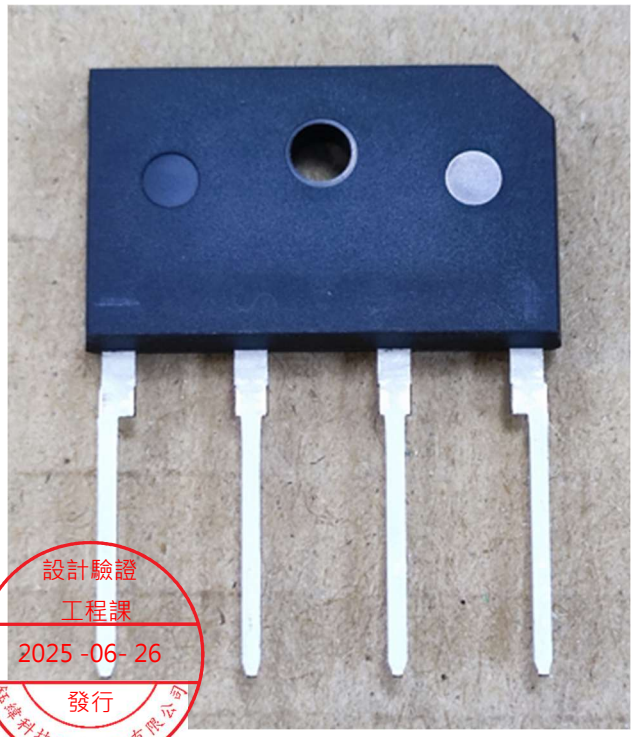




設計驗證
工程課
2025 -06- 26
發行
鈺緯科技開發股份有限公司

承　認　書

SPECIFICATION FOR APPROVAL

CUSTOMER: 鈺緯科技開發股份有限公司

PRODUCTS: **MCC**

PART NUMBER: **3DKBJ408G2X** (D0179)
KBJ408G-BP

SAMPLE QUANTITY: **10 EA**

ISSUED DATE: 06/17/25　　APPROVED DATE:

APPROVED	REFERENCE
設計驗證 工程課 2025 -06- 26 發行 鈺緯科技開發股份有限公司	宇得國際企業有限公司 TEL： 2911-3323 台北縣新店市寶高路13號4樓

Unit-Teek
宇得國際企業有限公司　Unit-Teek ENTERPRISE CO., LTD.
台灣新北市新店區寶高路13號4樓　TEL: 886-2-2911-3323　FAX: 886-2-2911-3320
4F., No.13, Baogao Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)　E-Mail: unitt@ms25.hinet.net

	E502650

4 Amp Bridge Rectifier 50 to 1000 Volts

Features

- Halogen Free. “Green” Device (Note 1)
- Glass Passivated Chip Junction
- High Surge Forward Current Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish/RoHS Compliant (Note 2)("P" Suffix Designates RoHS Compliant. See Ordering Information)

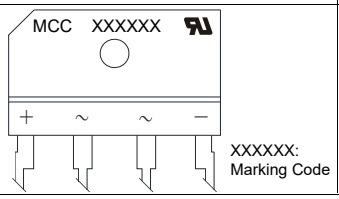
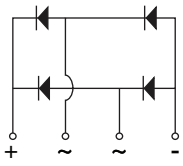
Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		KBJ 4005G	KBJ 401G	KBJ 402G	KBJ 404G	KBJ 406G	KBJ 408G	KBJ 410G	
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	V_{RWM}								
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ T_C=110°C	$I_{F(AV)}$	4							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	150							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		300							
I^2t Rating for Fusing @1ms≤t≤8.3ms	I^2t	93							A^2s
Dielectric strength @Terminals to Case, AC 1 Minute	V_{dis}	2							KV

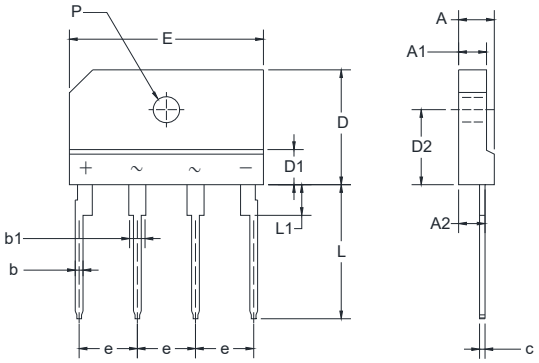
Marking Code

Part Number	Marking Code
KBJ4005G	KBJ4005G
KBJ401G	KBJ401G
KBJ402G	KBJ402G
KBJ404G	KBJ404G
KBJ406G	KBJ406G
KBJ408G	KBJ408G
KBJ410G	KBJ410G

Internal Structure

Simplified Outline	Graphic Symbol
	

KBJ



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.173	0.189	4.40	4.80	
A1	0.134	0.150	3.40	3.80	
A2	0.126	0.134	3.20	3.40	
b	0.035	0.043	0.90	1.10	
b1	0.059	0.075	1.50	1.90	
c	0.024	0.031	0.60	0.80	
D	0.579	0.602	14.70	15.30	
D1	0.150	0.165	3.80	4.20	
D2	0.374	0.413	9.50	10.50	
E	0.976	0.992	24.80	25.20	
e	0.287	0.303	7.30	7.70	
L	0.669	0.709	17.00	18.00	
L1	0.130	0.146	3.30	3.70	
P	0.122	0.134	3.10	3.40	ø

Note:
1.Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2.High temperature solder exemption applied, see EU directive annex 7a.

Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$Rth_{(J-C)}$	Thermal Resistance from Junction to Case	Note 1		3		°C/W
$Rth_{(J-A)}$	Thermal Resistance from Junction to Ambient	Without Heatsink		20		°C/W

Note:
1.Device mounted on 75mm x 45mm x 5.5mm Aluminum Plate Heatsink.

Mechanical Data

Recommended Mounting Torque: 0.5 N•m

Electrical Characteristics @ 25°C Unless Otherwise Specified(Per Diode)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	I_F=2A;T_J=25°C			1.0	V
Reverse Current	I_R	at Rated V_R;T_J=25°C at Rated V_R;T_J=125°C			5 100	μA
Junction Capacitance	C_J	V_R=4V;f=1MHz;T_J=25°C		50		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

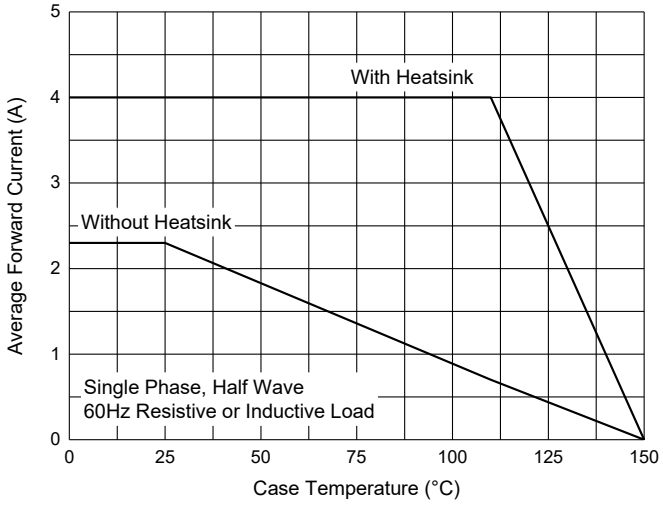


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

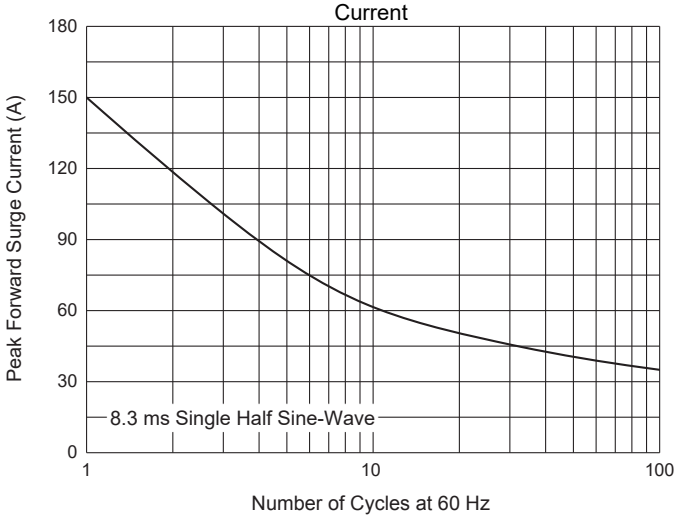


Fig. 3 - Typical Forward Characteristics

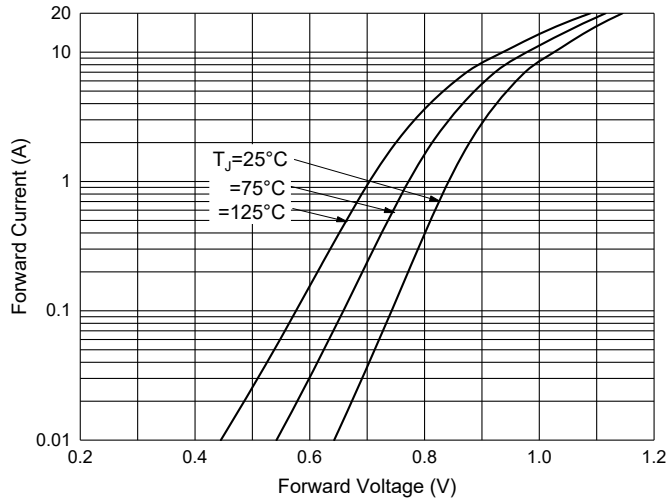


Fig. 4 - Typical Reverse Leakage Characteristics

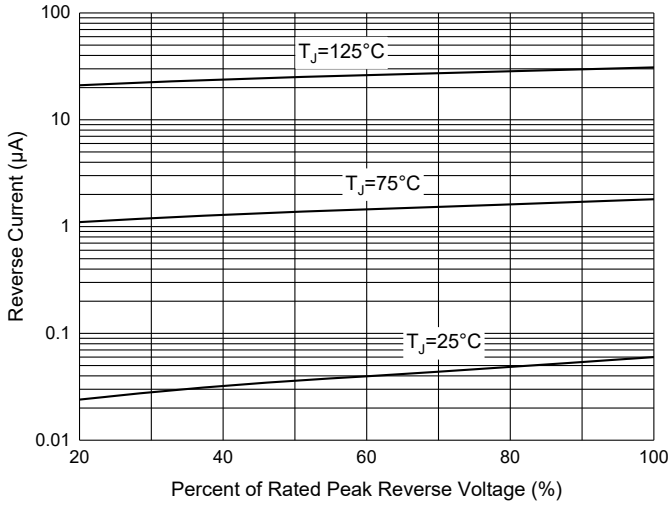
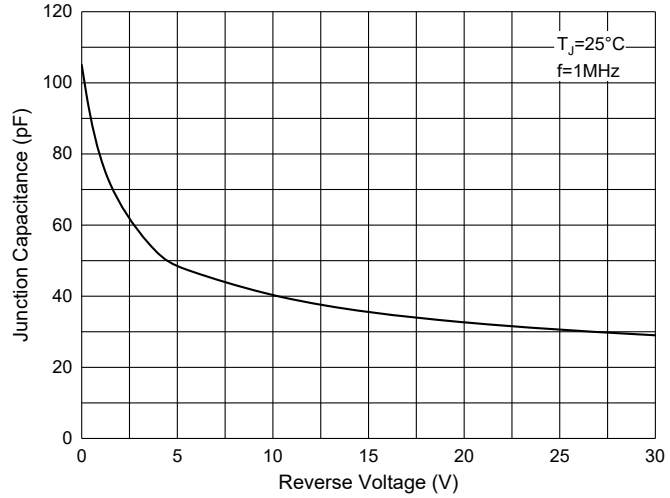


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-BP	Bulk:20pcs/Tube,1Kpcs/Box,2Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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