DBF31 THRU DBF310

Chip Integration Technology Corporation

3A Bridge Rectifiers

■ Features

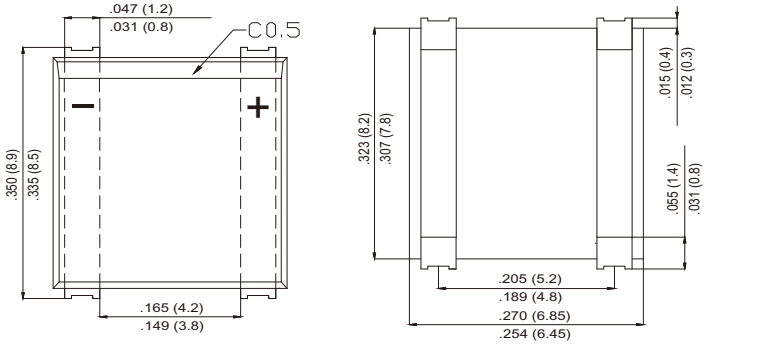
- Glass passivated die construction
- Low leakage
- High current capability
- Ideal for printed circuit board
- Design for surface mount application
- Suffix “G” indicates Halogen free parts, ex DBF31G
- Plastic Material-UL Flammability 94V-0

■ Mechanical data

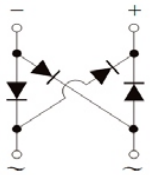
- Case : DBF,Molded plastic.
- Terminals :plated leads solderable per MIL-STD-202, Method 208.
- Polarity : as marked on case.
- Mounting position: Any.
- Marking: type number.

■ Outline

DBF



■ Circuit Diagram



■ Maximum ratings and electrical characteristics

■ Dimensions in inches and (millimeters)

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

Parameter	Conditions	Symbol	Value	UNIT
Average rectified output current	T_C = 100°C (Note:1)	IF(AV)	3	A
Rating for fusing (t<8.3ms)		I^2t	50.215	A^2s
Non-Repetitive Peak Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	110	A
Peak Reverse current at rated DC blocking voltage	T_A = 25°C	I_R	5	uA
	T_A = 125°C		500	
Typical Thermal resistance per leg		$R_{\theta JA}$	70	°C/W
		$R_{\theta JC}$	15	
Typical Junction Capacitance per leg(Note 2)		C_J	45	pF
Operating and Storage temperature Range		T_J, T_{STG}	-55 to +150	°C

Symbol	Max. repetitive peak reverse voltage V_{RRM} (V)	Max. Working peak reverse voltage V_{RWM} (V)	Max. DC blocking voltage V_{DC} (V)	Max. RMS voltage V_{RMS} (V)	forward voltage per element @IF=3A V_{FM} (V)
DBF31	100	100	100	70	1.0
DBF32	200	200	200	140	
DBF34	400	400	400	280	
DBF36	600	600	600	420	
DBF38	800	800	800	560	
DBF310	1000	1000	1000	700	

Note: 1.Mounted on glass epoxy PC board with 1.3mm² solder pad.
Note: 2.Measured at 1.0 MHZ and applied reverse voltage of 4.0V DC.

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■ Rating and characteristic curves

Fig. 1 Output Current Derating Curve

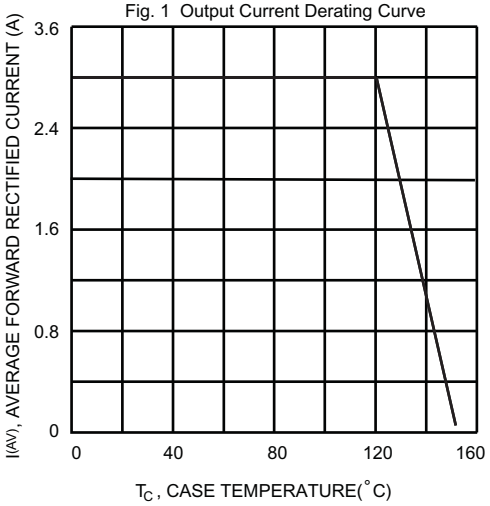


Fig. 2 Typical Forward Characteristics (per leg)

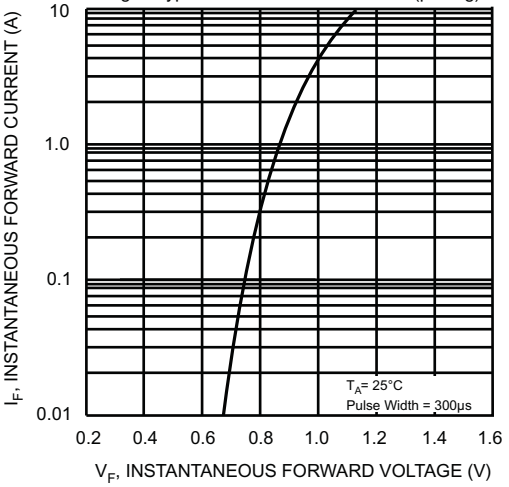


Fig. 3 Maximum Peak Forward Surge Current (per leg)

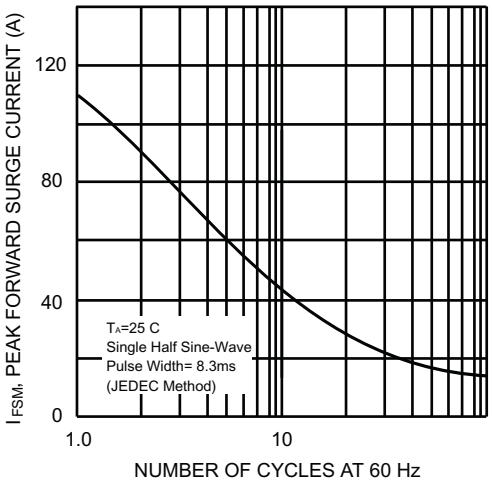


Fig. 4 Typical Junction Capacitance

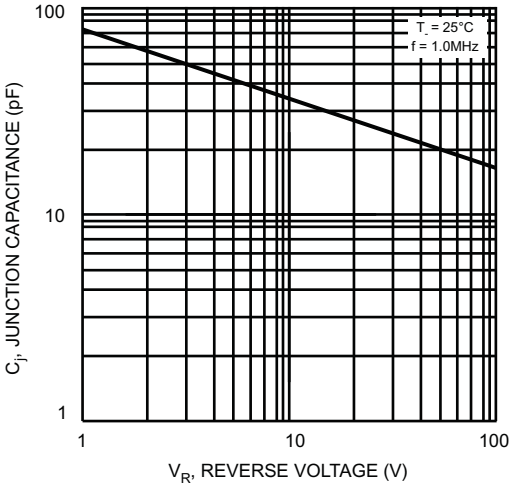
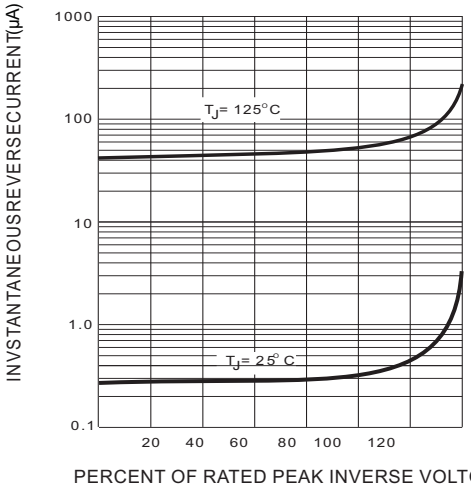


FIG.5 TYPICAL REVERSE CHRACTERISTICS



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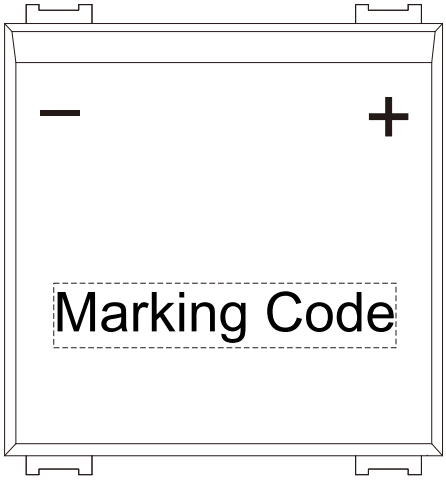
■ Marking Information



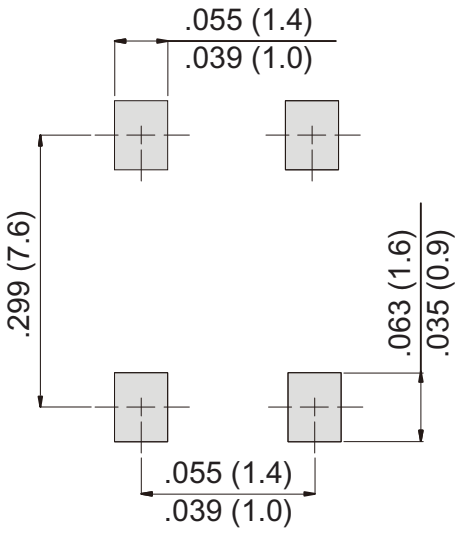
	Part number	Marking Code
Halogen	DBF31	DBF31
	DBF32	DBF32
	DBF34	DBF34
	DBF36	DBF36
	DBF38	DBF38
	DBF310	DBF310
Halogen free	DBF31G	DBF31H
	DBF32G	DBF32H
	DBF34G	DBF34H
	DBF36G	DBF36H
	DBF38G	DBF38H
	DBF310G	DBF310H

■ Ordering/Packing information

Part number		Case	Q'TY/Reel (PCS)	Q'TY/Box (PCS)	Q'TY/Carton (PCS)
Halogen	DBF31	DBF	3,000	6,000	48,000
Halogėn free	DBF310G				

Notes : 1. For packaging details please reference our website at http://www.citcorp.com.tw/tchinese/products/index.php

■ DBF foot print



Dimensions in inches and (millimeters)

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