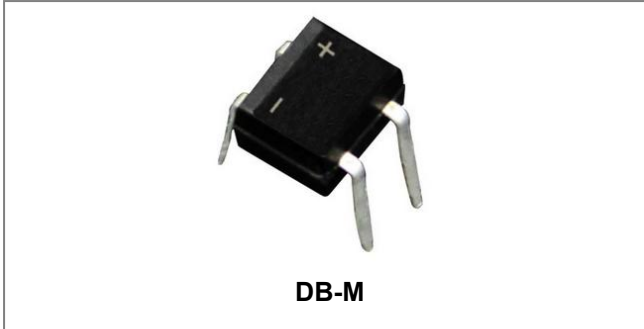


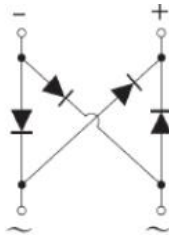
DF151 THRU DF157 SINGLE-PHASE GLASS PASSIVATED SILICON BRIDGE RECTIFIER



Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Plastic material-UL flammability 94V-0
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Circuit Diagram



Mechanical Data

- Case: DB-M, Molded plastic
- Terminals: Plated leads solderable per MIL-STD-202, Method 208
- Polarity: as marked on case
- Mounting Position: Any
- Marking: Type Number
- Lead Free: For RoHS / Lead Free Version

Maximum Ratings and Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

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

Characteristic	Symbol	DF151	DF152	DF153	DF154	DF155	DF156	DF157	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	50	100	200	400	600	800	1000	V
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Forward Output Current (Note 1) @ $T_A=40^{\circ}\text{C}$	$I_{F(AV)}$	1.5							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	55							A

Electrical Characteristics:

Characteristic	Symbol	DF151	DF152	DF153	DF154	DF155	DF156	DF157	Units
Maximum Forward Voltage Drop per Bridge Element @ $I_F = 1.5A, T_J = 25^\circ C$	V_F				1.1				V
Peak Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 125^\circ C$	I_R				5				μA
Typical Junction Capacitance (Note 2)	C_J				25				pF

* Pulse width < 300 μs , duty cycle < 2%

Thermal-Mechanical Specifications:

Characteristic	Symbol	DF151	DF152	DF153	DF154	DF155	DF156	DF157	Units
Typical Thermal Resistance Junction to Ambient	$R_{\theta JA}$				40				$^\circ C/W$
Typical Thermal Resistance Junction to Lead	$R_{\theta JL}$				15				$^\circ C/W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}				-55 to + 150				$^\circ C$

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

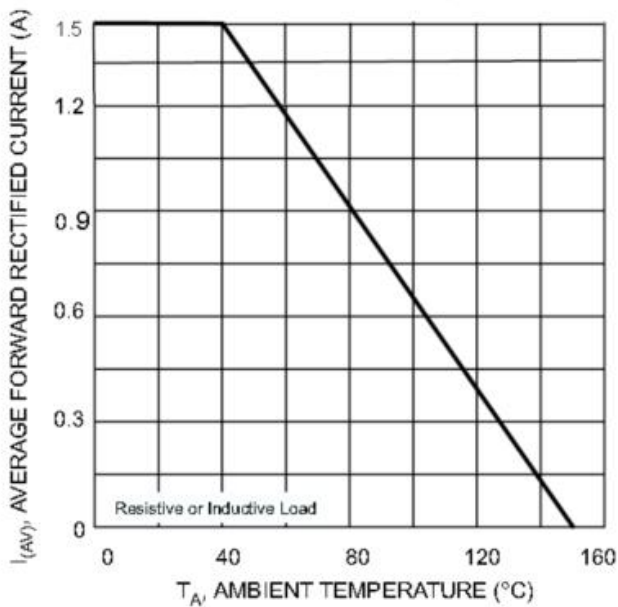
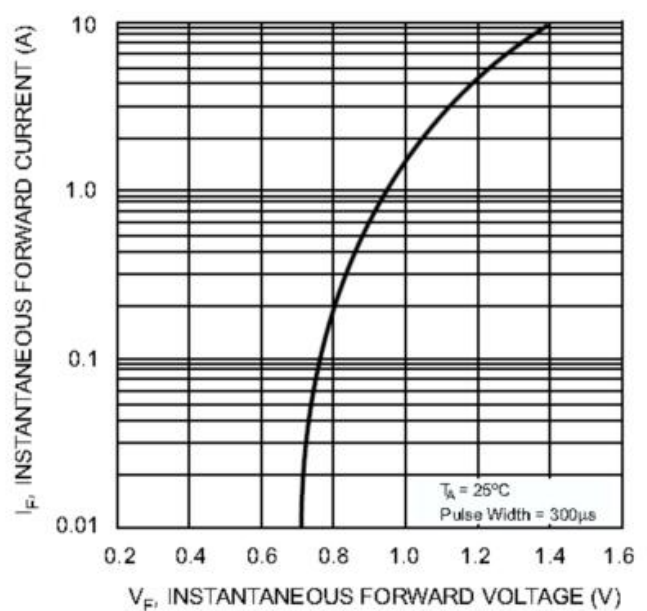
Ratings and Characteristics Curves
Fig. 1 Output Current Derating Curve

Fig. 2 Typical Forward Characteristics (per leg)


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

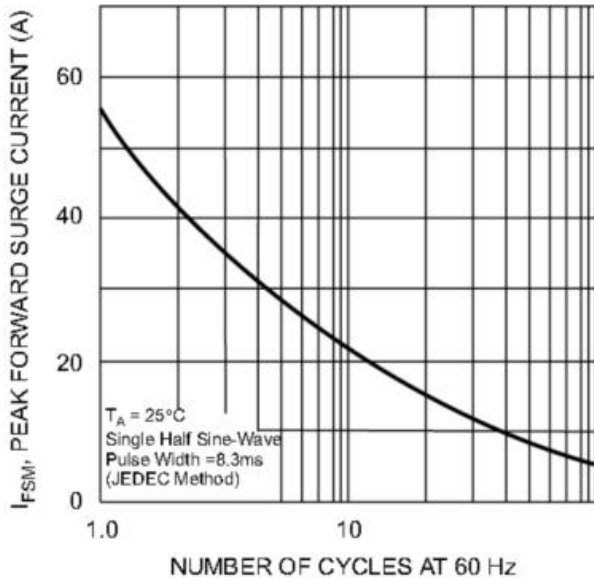
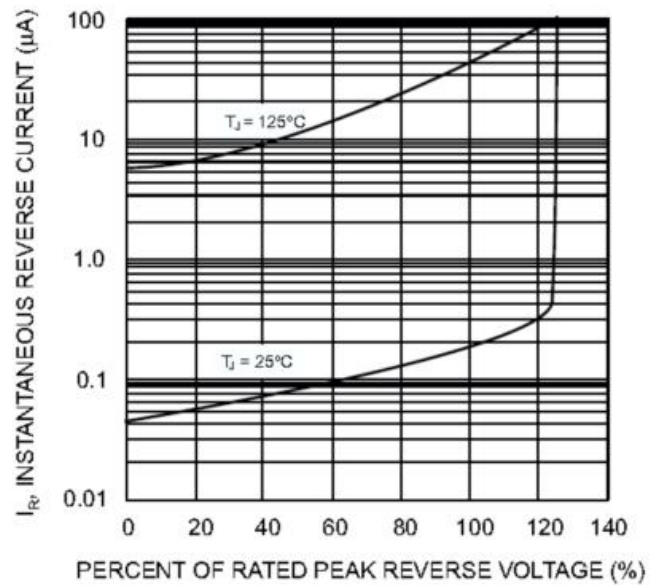
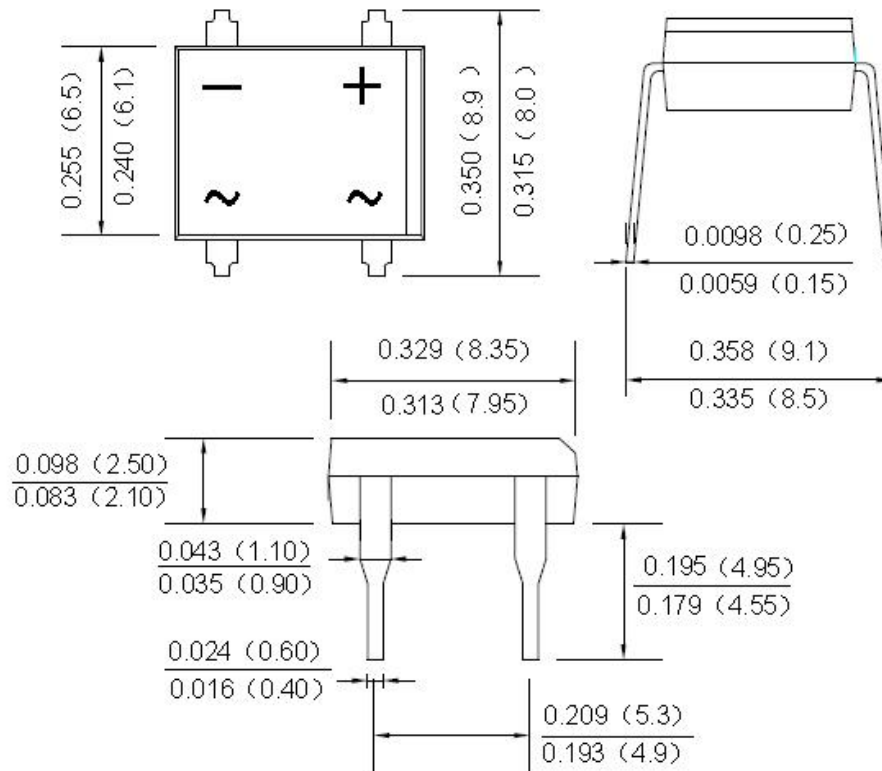


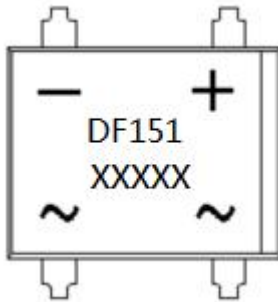
Fig. 4 Typical Reverse Characteristics (per element)



Mechanical Dimensions DB-M(Inches/Millimeters)



Marking Diagram



Where XXXXX is YYWWL

DF151 = Type Number
YY = Year
WW = Week
L = Lot Number

Cautions: Molding resin
Epoxy resin UL:94V-0

Ordering Information

Device	Package	Plating	Shipping
DF151 THRU DF157	DB-M(Pb-Free)	Pure Sn	50pcs / tube

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC Diode Solutions sales department for the latest version of the datasheet(s).
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