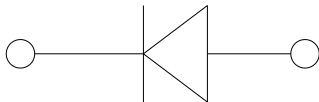
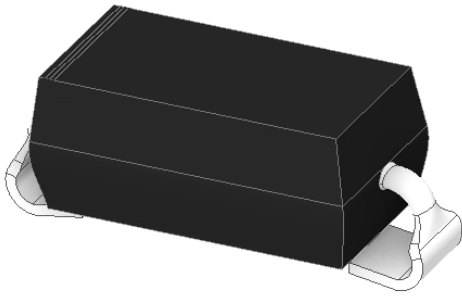


Plastic High Voltage Rectifier



Features

- VR 4KV
- IO 1.0A
- Glass passivated chip junction
- High surge current capability

Mechanical Data

- **Package:** SMB-W
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	EM540BGL
Device marking code			EM540BGL
Maximum Repetitive peak reverse voltage	V_{RRM}	V	4000
Maximum RMS Voltage	V_{RMS}	V	2800
Maximum DC Blocking Voltage	V_{DC}	V	4000
Average rectified output current @ 60Hz sine wave, Resistance load	I_O	A	1.0
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, Tj=25°C	I_{FSM}	A	20
Forward Surge Current (Non-repetitive) @1ms, square wave, 1 cycle, Tj=25°C			40
Current squared time @1ms≤t≤8.3ms Tj=25°C	I^2t	A ² s	1.66
Storage temperature	Tstg	°C	-55 ~ +150
Junction temperature	Tj	°C	-55 ~ +150

■Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	EM540BGL
Maximum instantaneous forward voltage	V_F	V	$I_{FM}=1.0A$	2.4
Maximum DC reverse current at rated DC blocking voltage	I_R	μA	Tj =25°C	5
			Tj =125°C	100
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	2.5



EM540BGL

■ Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
EM540BGL	F1	Approximate 0.067	3000	/	48000	Reel

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	EM540BGL
Typical Thermal Resistance	R _{θJA}	°C/W	90

■ Characteristics (Typical)

FIG.1: I_o-T_a Curve

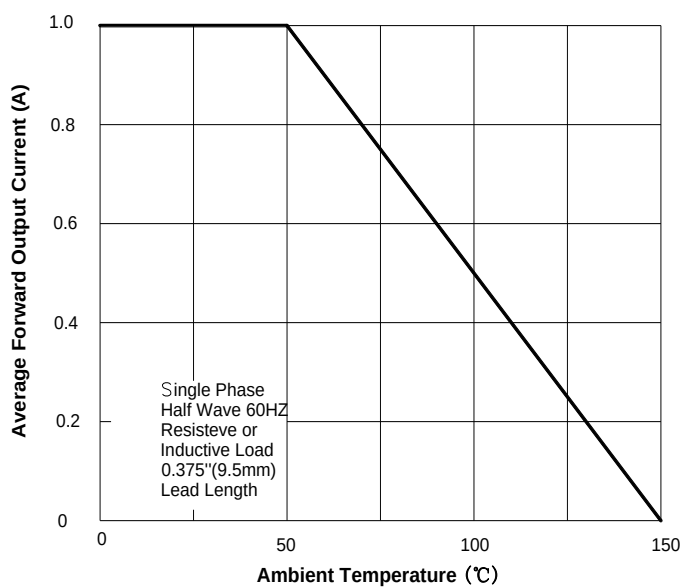


FIG.2: Forward Surge Current Capability

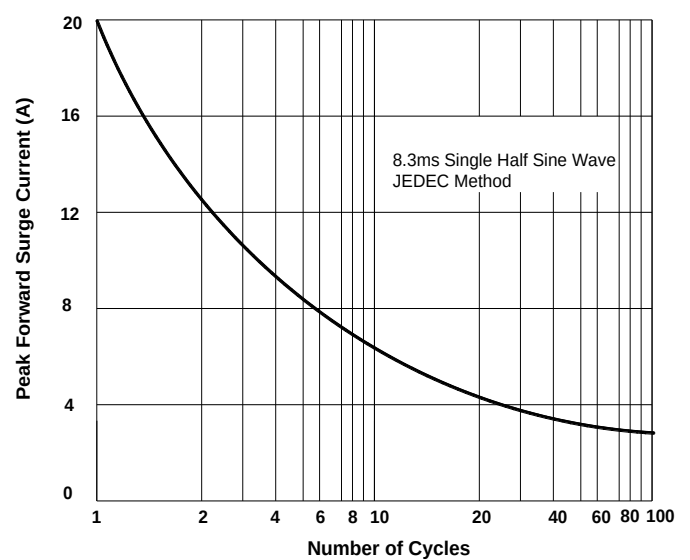


FIG.3: Forward Voltage

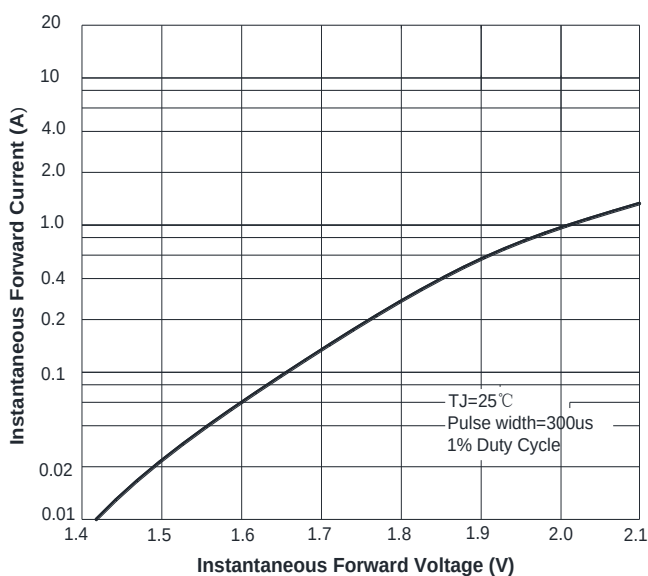
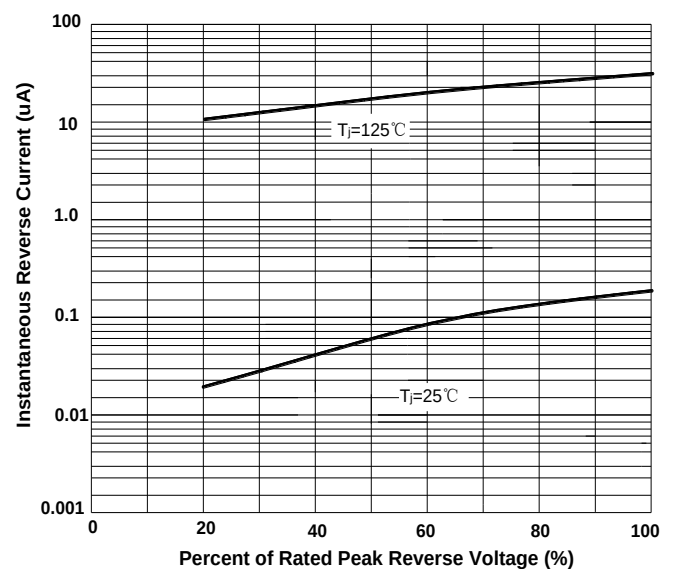


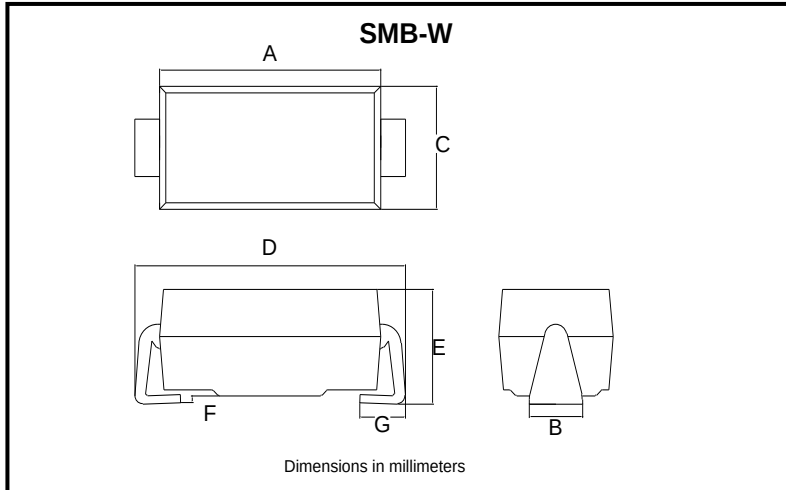
FIG.4: Typical Reverse Characteristics





EM540BGL

■ Outline Dimensions



SMB-W		
Dim	Min	Max
A	5.6	6.0
B	1.1	1.7
C	2.85	3.15
D	6.85	7.35
E	2.55	2.95
F	0.2TYP	
G	0.9	1.5



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.