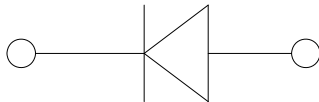
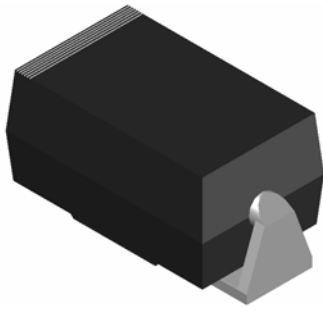


## Plastic High Voltage Rectifier



### Features

- VR 4KV
- IO 0.5A
- Glass passivated chip junction
- High surge current capability

### Mechanical Data

- **Package:** SMA-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	EM540AG
Device marking code			EM540AG
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	0.5
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 <sup>2</sup> s	1.66
Storage temperature	$T_{stg}$	°C	-55 ~ +150
Junction temperature	$T_j$	°C	-55 ~ +150

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	EM540AG
Maximum instantaneous forward voltage	$V_F$	V	$I_{FM}=0.5A$	2.3
Maximum DC reverse current at rated DC blocking voltage	$I_R$	μA	$T_j = 25^\circ C$	5
Typical junction capacitance	$C_j$	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C	3.2



# EM540AG

## Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
EM540AG	F1	Approximate 0.067	5000	/	80000	Reel

## Thermal Characteristics (T<sub>a</sub>=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	EM540AG
Typical Thermal Resistance	R <sub>θJ-A</sub>	°C/W	80 <sup>1)</sup>

## Characteristics (Typical)

FIG.1: I<sub>o</sub>-T<sub>a</sub> Curve

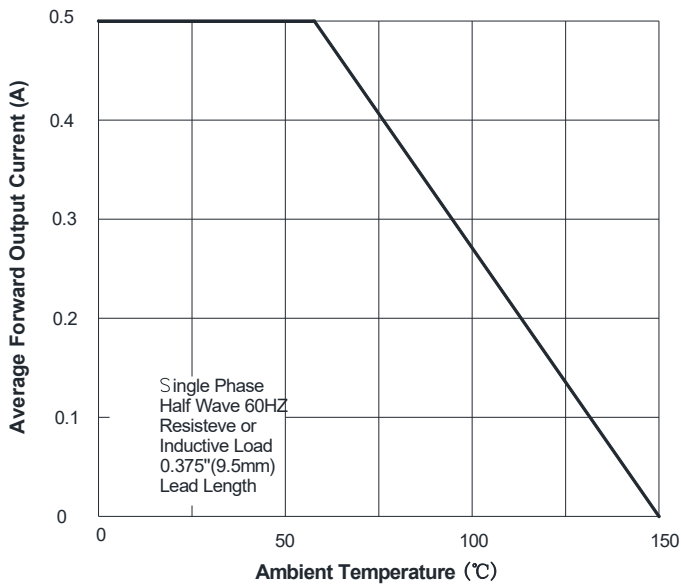


FIG.2: Forward Surge Current Capability

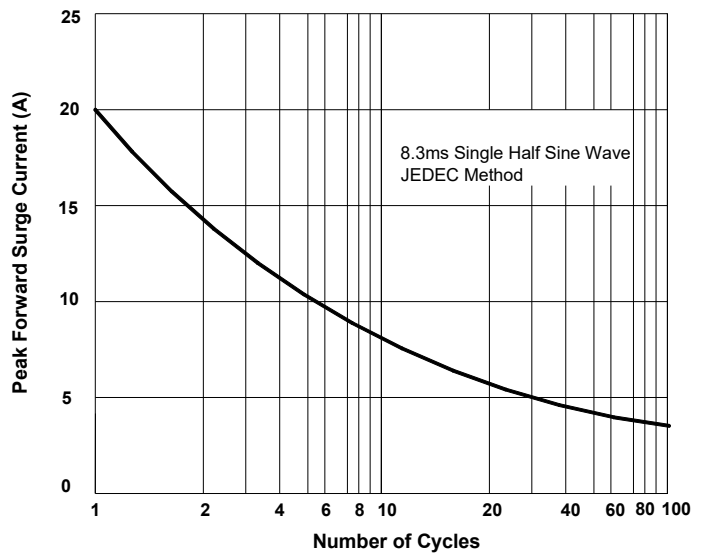


FIG.3: Forward Voltage

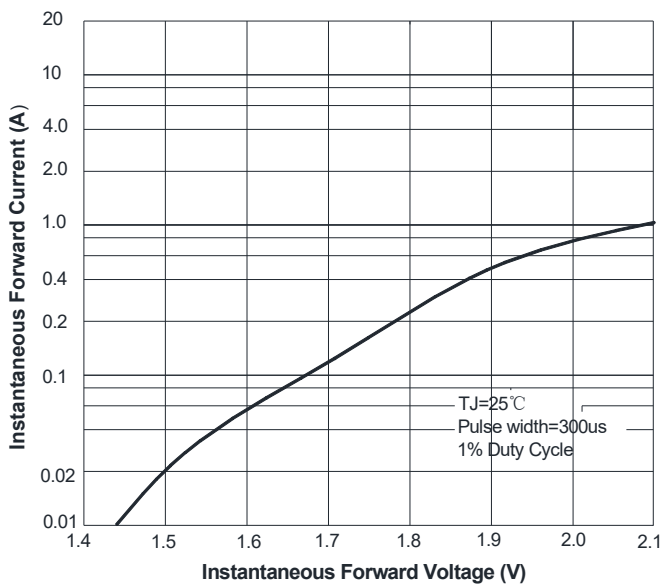
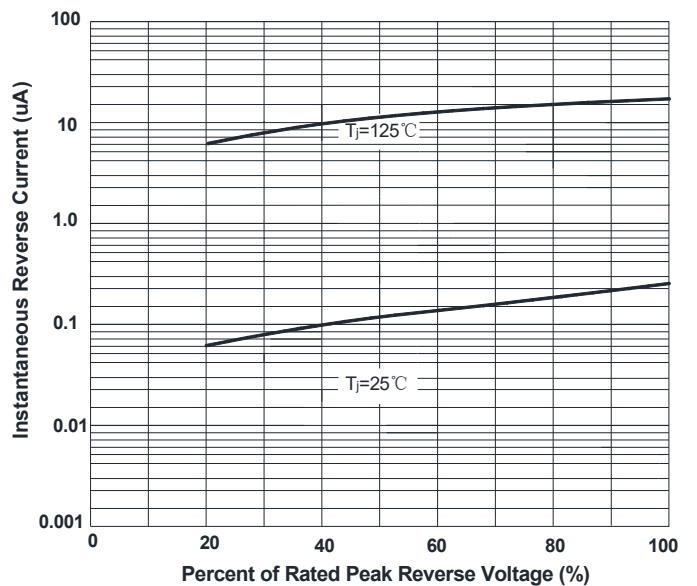


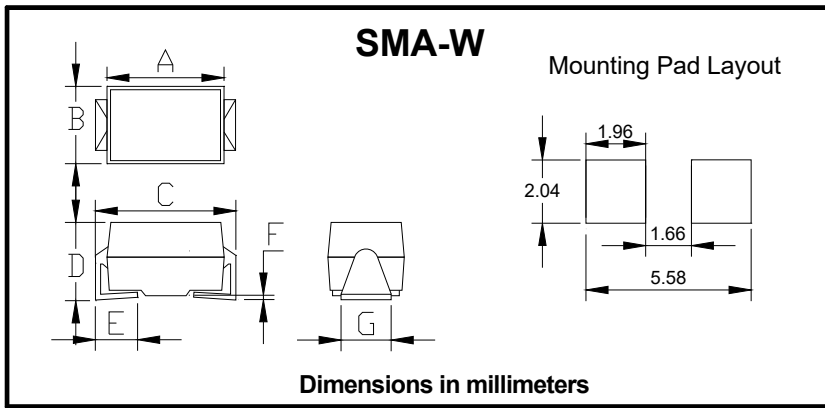
FIG.4: Typical Reverse Characteristics





# EM540AG

## ■ Outline Dimensions



SMA-W		
Dim	Min	Max
A	4.00	4.60
B	2.40	2.65
C	4.80	5.31
D	2.05	2.45
E	0.80	1.50
F	0.10	0.20
G	1.15	1.80



## EM540AG

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