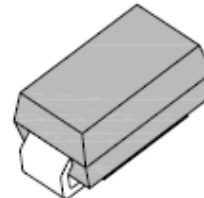


**1.0A Sintered Glass Passivated Super Fast Rectifier (SGP<sup>®</sup>)**

**Features**

- Sintered glass passivated (SGP<sup>®</sup>) rectifier chip
- Glass passivated cavity-free junction
- Ideal for surface mount automotive applications
- Built-in strain relief
- Easy pick and place
- High temperature soldering guaranteed: 260°C/10 seconds, at terminals
- RoHS Compliance



SMA



**Mechanical Data**

<b>Case:</b>	JEDEC DO-214AC(SMA) molded plastic over passivated chip
<b>Epoxy:</b>	Plastic package has UL flammability classification 94V-0
<b>Terminals:</b>	Solder plated, solderable per MIL-STD-750, Method 2026
<b>Polarity:</b>	Color band denotes cathode end
<b>Weight:</b>	0.002 ounces, 0.064 gram

**Maximum Ratings and Electrical Characteristics** ( $T_A=25^{\circ}C$  unless noted otherwise)

Symbol	Description	EGF1A	EGF1B	EGF1D	EGF1G	EGF1J	EGF1K	Unit	Conditions
<b>V<sub>RRM</sub></b>	Maximum Repetitive Peak Reverse Voltage	50	100	200	400	600	800	V	
<b>V<sub>RMS</sub></b>	Maximum RMS Voltage	35	70	140	280	420	560	V	
<b>V<sub>DC</sub></b>	Maximum DC Blocking Voltage	50	100	200	400	600	800	V	
<b>I<sub>F(AV)</sub></b>	Maximum Average Forward Rectified Current	1.0						A	TL=110° C
<b>I<sub>FSM</sub></b>	Peak Forward Surge Current	30				25		A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)

# 1.0A Sintered Glass Passivated Super Fast Rectifier (SGP®)

## EGF1A - EGF1K

Symbol	Description	EGF1A	EGF1B	EGF1D	EGF1G	EGF1J	EGF1K	Unit	Conditions
<b>V<sub>F</sub></b>	Maximum Instantaneous Forward Voltage	0.95			1.25	1.70	2.20	V	I <sub>F</sub> =1.0 A
<b>I<sub>R</sub></b>	Maximum DC Reverse Current at Rated DC Blocking Voltage	5.0						μA	TA=25° C
		50							TA=125° C
<b>T<sub>rr</sub></b>	Maximum Reverse Recovery Time	35						nS	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A
<b>C<sub>J</sub></b>	Typical Junction Capacitance	10						pF	V <sub>R</sub> =4V, f=1MHz
<b>R<sub>thJA</sub></b>	Typical Thermal Resistance	85						°C / W	Note
<b>R<sub>thJL</sub></b>	Typical Thermal Resistance	34						°C / W	
<b>T<sub>J</sub>, T<sub>STG</sub></b>	Operating junction and Storage Temperature Range	-55 to +175						°C	

**Note:** Thermal resistance from junction to lead and from junction to ambient P.C.B mounted on 0.2x0.2" (5.0x5.0mm) copper pad areas.

### Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

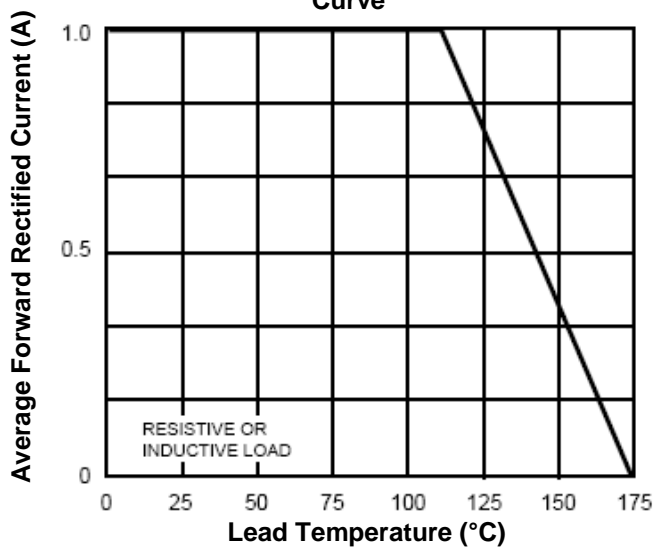
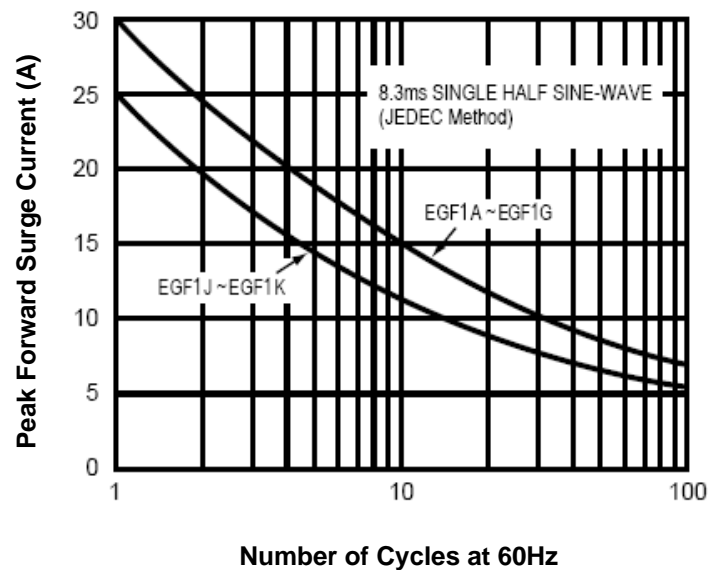


Fig.2-Max. Non-Repetitive Forward Surge Current



# 1.0A Sintered Glass Passivated Super Fast Rectifier (SGP<sup>®</sup>)

## EGF1A - EGF1K

Fig.3- Typical Instantaneous Forward Characteristics

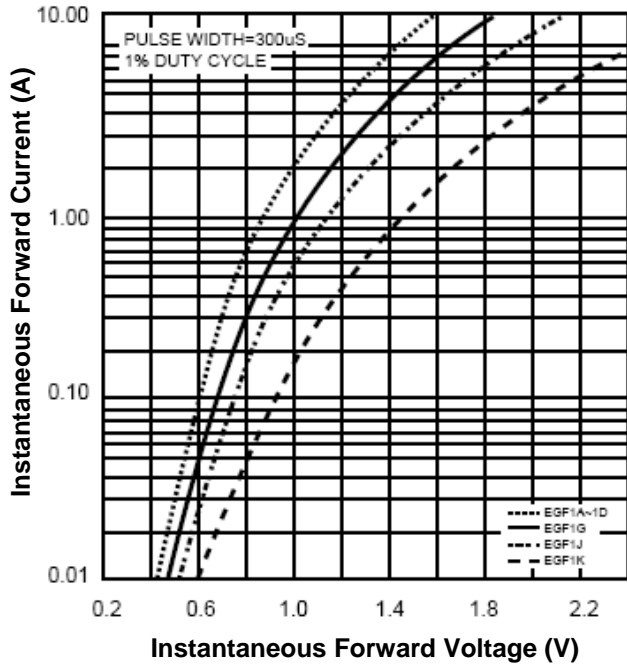


Fig.4-Typical Reverse Characteristics

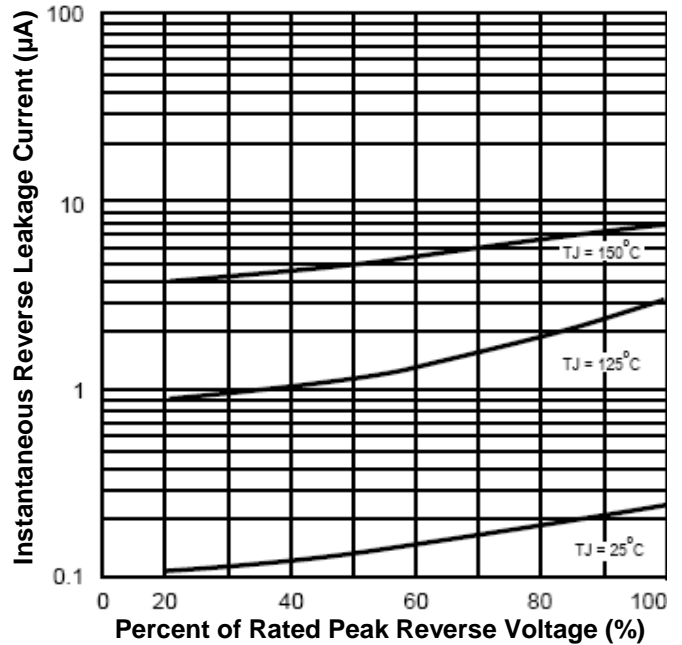
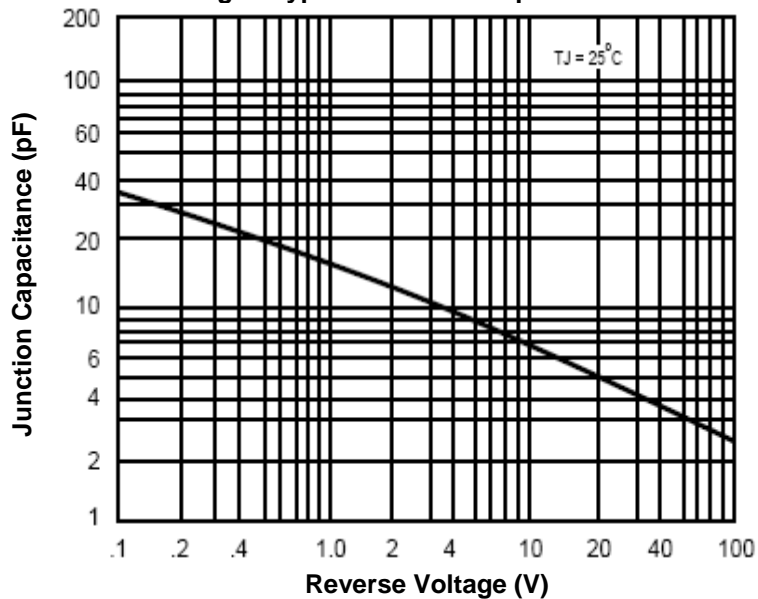


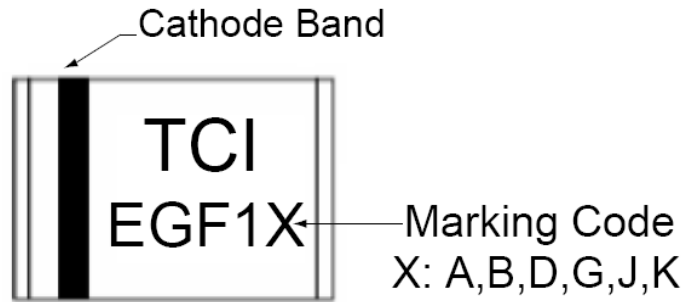
Fig.5- Typical Junction Capacitance



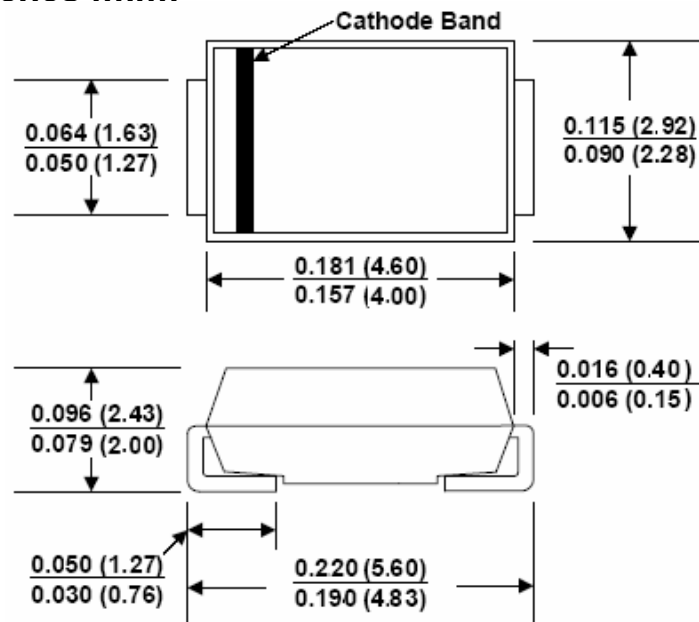
# 1.0A Sintered Glass Passivated Super Fast Rectifier (SGP<sup>®</sup>)

EGF1A - EGF1K

## Marking Information:



## Dimensions in inches (mm)

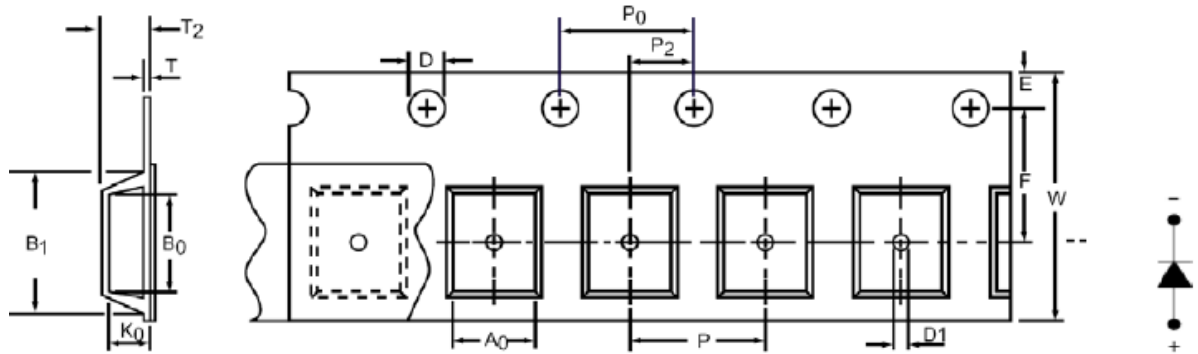


SMA

# 1.0A Sintered Glass Passivated Super Fast Rectifier (SGP®)

## EGF1A - EGF1K

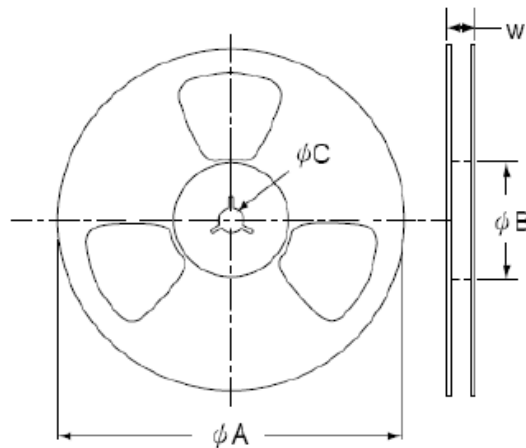
### Packing Information in mm



Product Type	A0	B0	K0	D	E	P0	T
	See Note			1.5±0.1	1.75±0.10	4.0±0.1	0.4max.
SMA	P2	B1	D1	F	P	W	T2
	2.0±0.1	8.20max.	1.5min.	5.50±0.05	4.0±0.1	12.0±0.3	2.54±0.10

**Note:** Symbol A0, B0, K0 are determined by the maximum dimensions of the component size.  
The clearance between the component and the cavity must be within 0.05 mm (0.002") min. to 0.50 mm (0.02") max. for 12 mm tape.

### Reel Dimensions in mm



Product Type	ΦA	ΦB	ΦC	W
SMA	178.0±2.0	50.0min.	13.0±0.5	18.7max.
SMA	330.0±2.0	50.0min.	13.0±0.5	18.7max.

# 1.0A Sintered Glass Passivated Super Fast Rectifier (SGP®)

## EGF1A - EGF1K

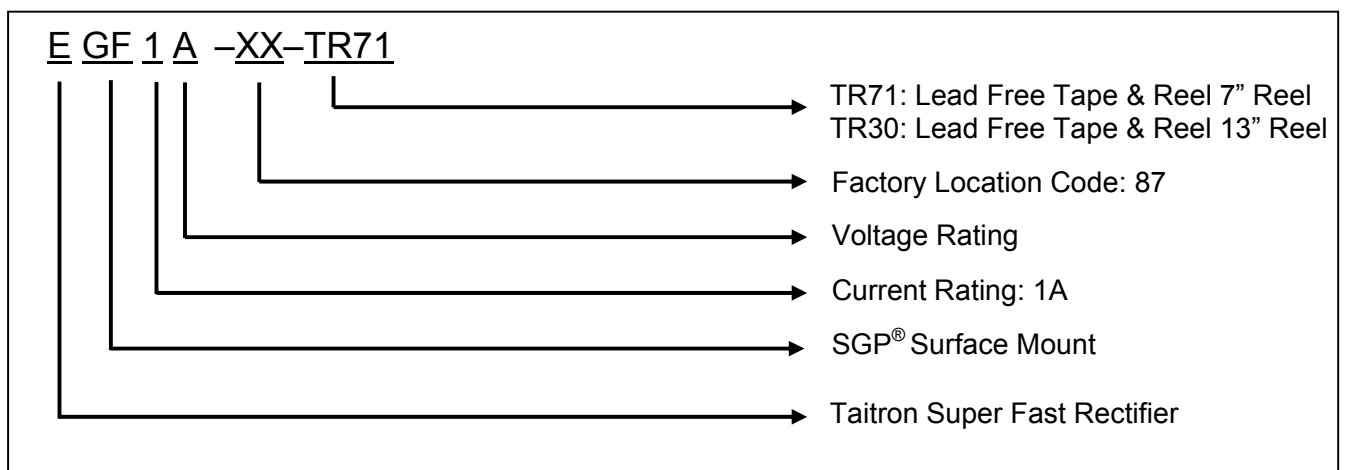
### Packing Quantity Information:

Quantity	PCS per Reel	PCS per Inner Box	PCS per Carton
TR71 Tape & Reel	1800	7200	43200
TR30 Tape & Reel	7500	15000	75000

### Carton Size Information:

Carton Size	
TR71	400x207x240 (in mm)
TR30	360x360x240 (in mm)

### Ordering Information



# 1.0A Sintered Glass Passivated Super Fast Rectifier (SGP®)

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EGF1A - EGF1K

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