

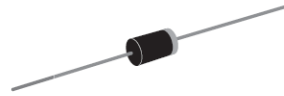


GENERAL PURPOSE RECTIFIER EM513G~EM518G

General Purpose Rectifier

Features

- Low forward voltage drop
- Glass passivated (GPRC) dice
- Low leakage current
- High forward surge current capability
- High temperature soldering guaranteed 250°C/10 seconds
/.0375" (9.5mm) lead length
- RoHS and REACH Compliant



DO204AL
(DO-41)

RoHS
COMPLIANT

Mechanical Data

Case:	Transfer molded plastic
Epoxy:	Meets UL 94V-0 flammability rating
Terminals:	Plated axial leads, solderable per MIL-STD-202E, Method 208C
Polarity:	Color band denotes cathode end
Mounting position:	Any
Weight:	0.012 Ounce, 0.33 gram

Maximum Ratings ($T_{Ambient}=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	EM513G	EM516G	EM518G	Unit	Conditions
VRRM	Max Recurrent Peak Reverse Voltage	1600	1800	2000	V	
VRMS	Max RMS Voltage	1120	1260	1400	V	
VDC	Max DC Blocking Voltage	1600	1800	2000	V	
IF(AV)	Max Average Forward Rectified Current	1.0			A	.0375" (9.5mm) lead length at $T_A=75^{\circ}\text{C}$
IFSM	Peak Forward Surge Current	30			A	8.3ms single half sine-wave (JEDEC)
IR(AV)	Max Full Load Reverse Current	30			μA	
TJ, TSTG	Operating and Storage Temperature	-65 to +175			$^{\circ}\text{C}$	

Electrical Characteristics ($T_{Ambient}=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	EM513G	EM516G	EM518G	Unit	Conditions
VF	Max Instantaneous Forward Voltage	1.3			V	IF(AV)=1.0A
IR	Max DC Reverse Current at Rated DC Blocking Voltage	5.0			μA	TA=25℃
		50				TA=100℃
CJ	Typical Junction Capacitance	15			pF	At 1MHz, reversed voltage of 4V
Rθ-JA	Typical Thermal Resistance	50			℃/W	Note 1

Note:

1. Thermal resistance from junction to ambient at .375" (9.5mm) lead length, PCB mounted with copper pad area of 0.2" x 0.2" (5x5mm).

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

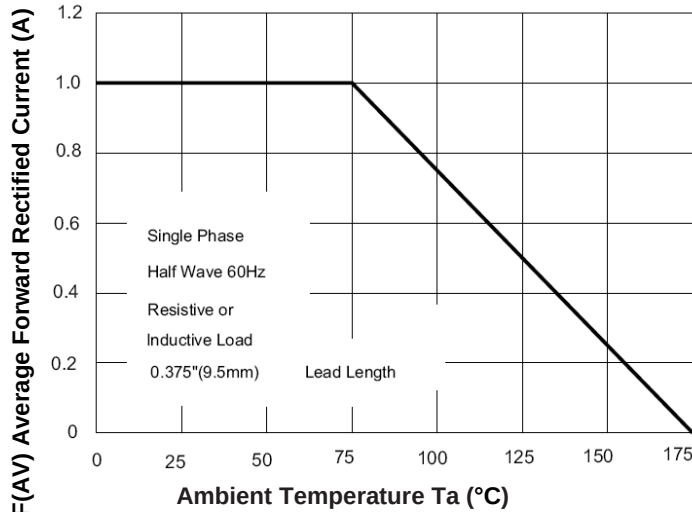


Fig.3- Typical Instantaneous Forward Characteristics

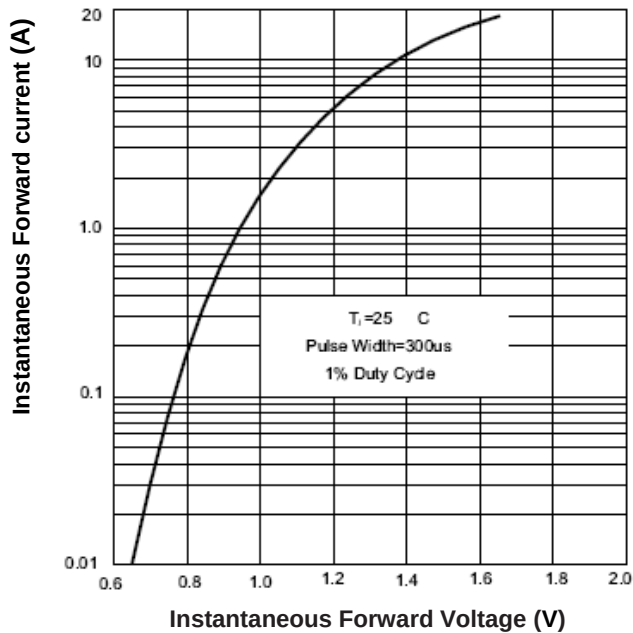


Fig.2- Max. Non-Repetitive Forward Surge Current

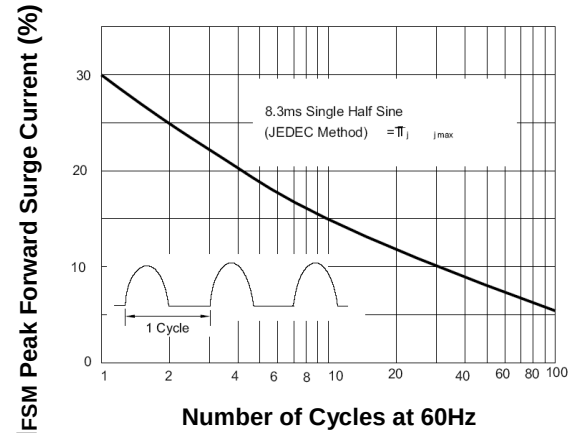


Fig.4- Typical Reverse Characteristics

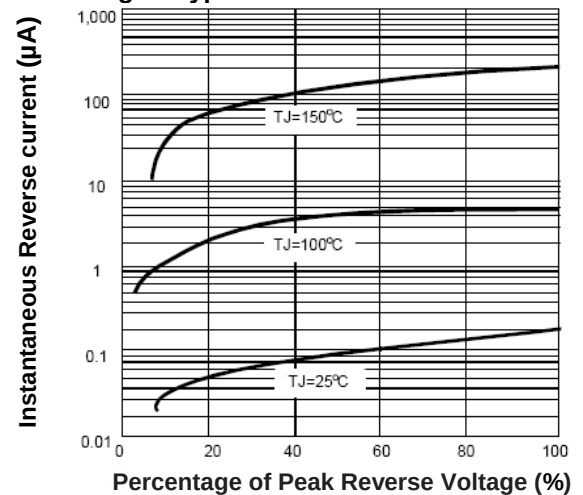
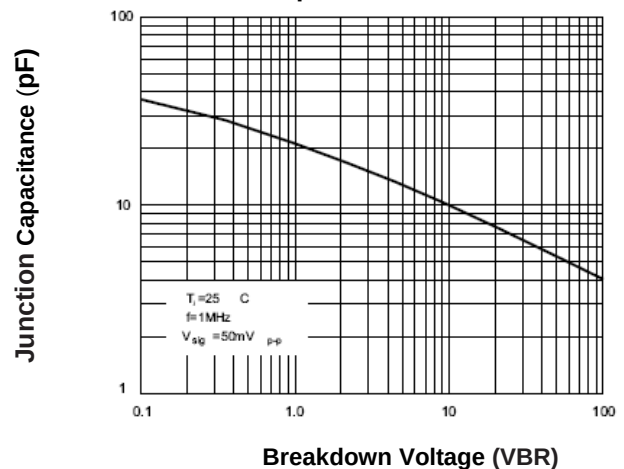
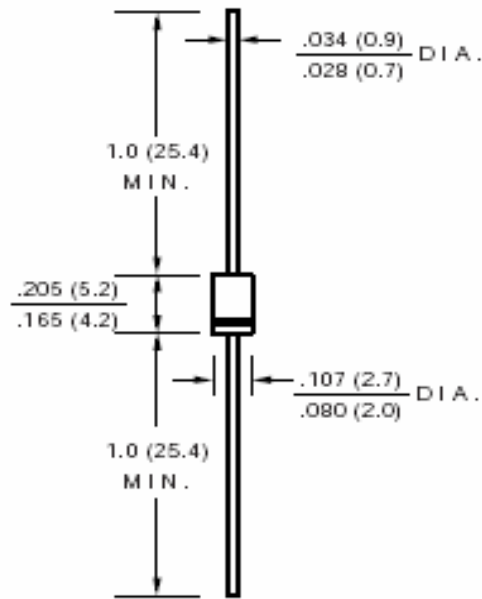


Fig.5- Typical Junction Capacitance



Dimensions in inch (mm)

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