



EM513G Thru EM518G



General Purpose Rectifiers Glass Passivation Junction



DO-41

Primary Characteristics		
I_F	1	A
V_{RRM}	1600~2000	V
I_{FSM}	30	A
V_F	1.1	V
$T_J \text{ max}$	150	°C

Features
<ul style="list-style-type: none"> • High current capability • High surge current capability • Low reverse current • Component in accordance to RoHS 2002/95/EC

Mechanical Data
<ul style="list-style-type: none"> • Cases: DO-41 • Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 • Terminals: Lead free Plating (Tin Finish) Solderable per MIL-STD-202, Method 208 • Polarity: Cathode Band • Weight: 0.318 grams (approximate)

Ordering Information			
Part No.	Remark	Package	Packing
EM51xG	General	DO-41	5000 / Ammo Box
EM51xG-H	Halogen Free		
EM51xG-Q	AEC-Q101 qualified		

Maximum Ratings (TA=25°C unless otherwise noted)					
PARAMETER	SYMBOL	EM513G	EM516G	EM518G	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	1600	1800	2000	V
Maximum RMS voltage	V_{RMS}	1120	1260	1400	V
Maximum DC blocking voltage	V_{DC}	1600	1800	2000	V
Maximum average forward rectified current	I_F	1			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	30			A
Maximum Instantaneous Forward Voltage IF=1A @ 25°C	V_F	1.1			V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	I_R	5 50			uA
Typical Junction Capacitance(NOTE1)	C_j	25			pF
Typical Thermal Resistance	$R_{\theta JC}$	20			°C/W
Operating Temperature Range	T_J	-55 to +150			°C
Storage Temperature Range	T_{STG}	-55 to +150			°C
Marking Code		EM513G	EM516G	EM518G	

NOTES:

1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC



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Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

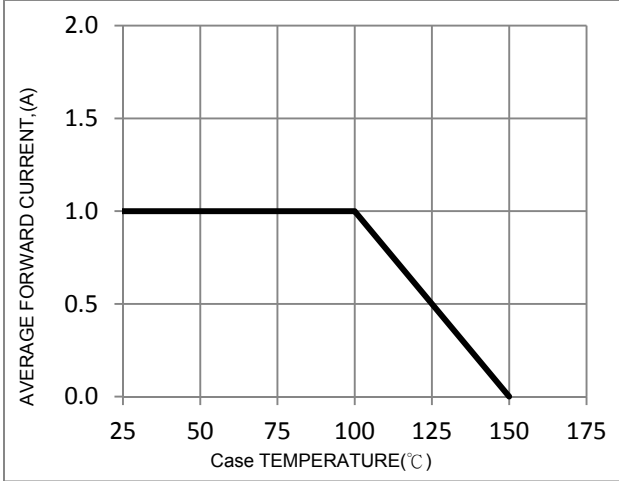


FIG. 2-Typical Forward Characteristics

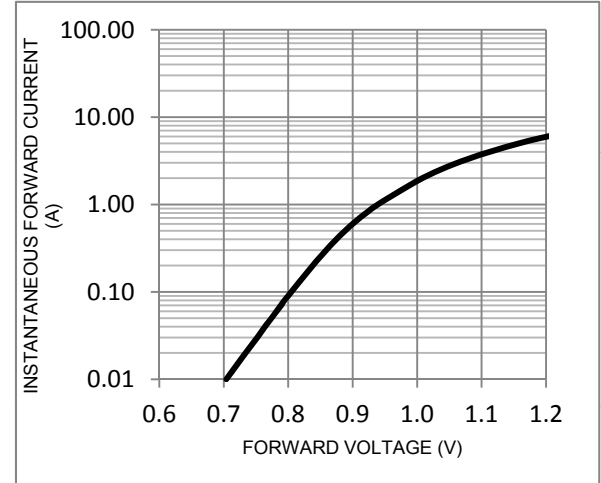


FIG. 3-Maximum Non-Repetitive Forward Surge Current

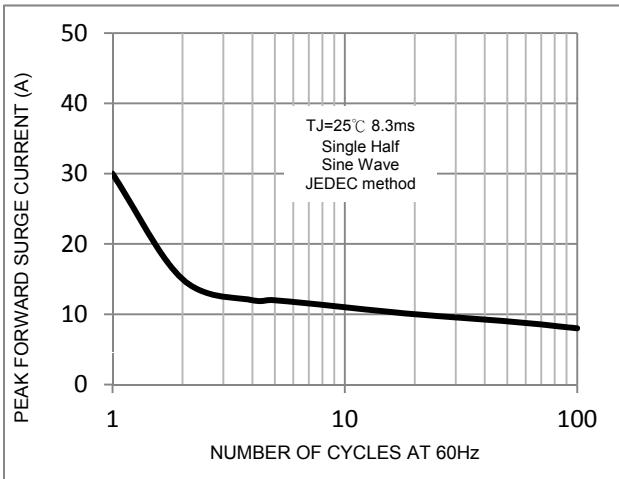


FIG. 4-Typical Reverse Characteristics

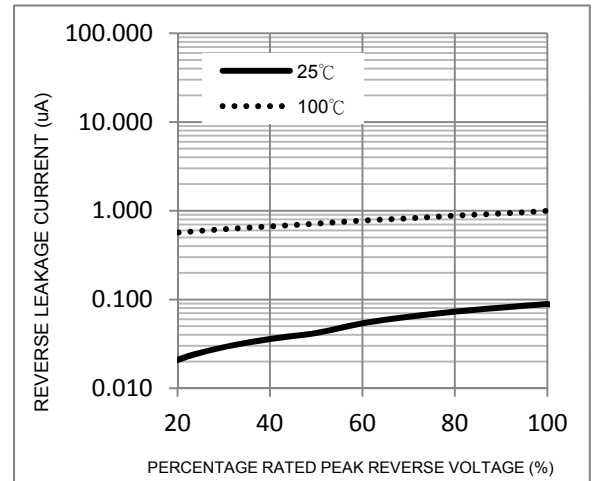
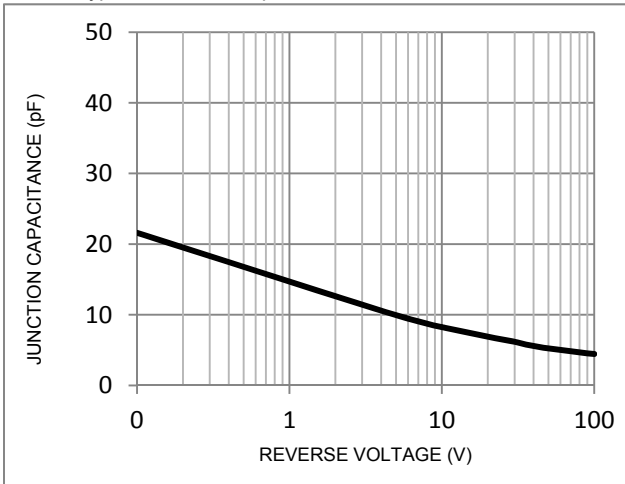


FIG. 5-Typical Junction Capacitance



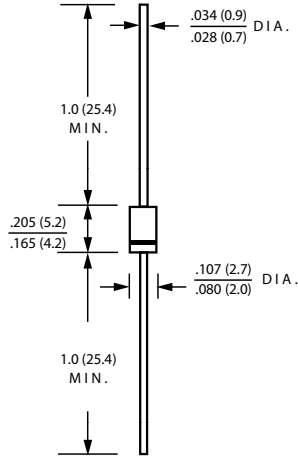


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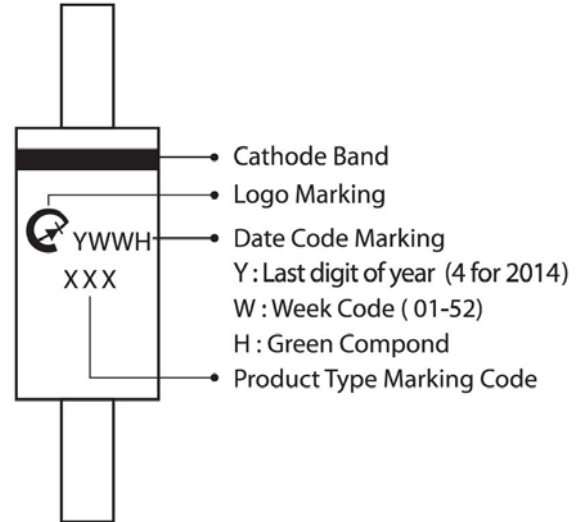
Package Outline Dimensions



DO-41

Dimensions in inches and (millimeters)

Marking Information



Ammo Box Packing

Package	Inner	BOX	Inner Box	Inner Box GW	Carton	Carton Size	Gross Weight
	Pack	(EA)	(mm)	(Kg)-Approx	(EA)	(mm)	(Kg)-Approx.
DO-41(DO-204AL)-52mm	Reel	5,000	258x79x147	1.5	50,000	420x275x315	16.0