



Micro Commercial Components



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# EM513 THRU EM518

## Features

- Halogen free available upon request by adding suffix "-HF"
- High reverse voltage
- Low reverse leakage
- High forward surge current capability.
- Lead Free Finish/RoHS Compliant (Note2) ("P" Suffix designates Compliant. See ordering information)
- Weight: 0.012 ounce, 0.33grams
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1

## Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
EM513	1600V	1120V	1600V
EM516	1800V	1260V	1800V
EM518	2000V	1400V	2000V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

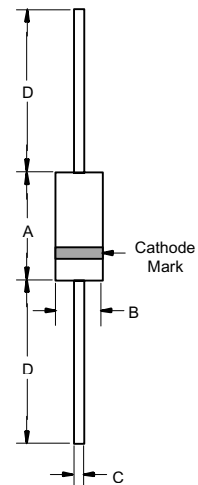
Average Forward Current	$I_O$	1.0A	.375" (9.5mm) Lead Length $T_A = 55^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	25A	8.3ms, half sine
Maximum Instantaneous Forward Voltage EM513~EM516 EM518	$V_F$	1.1V 1.2V	$I_{FM} = 1.0A;$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5µA 50µA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	15pF	Measured at 1.0MHz, $V_R=4.0V$
Typical Thermal Resistance	$R_{thja}$	50°C/W	(Note 1)

Note 1: Thermal Resistance from Junction to Ambient at 0.375" (9.5mm) lead length, P.C. board mounted.

2: High Temperature Solder Exemption Applied, see EU Directive Annex 7.

## 1.0 Amp General Purpose Plastic Rectifier 1600 to 2000 Volts

DO-41



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	.028	.034	.70	.90	
D	1.000	---	25.40	---	

## EM513 THRU EM518

FIG.1-TYPICAL FORWARD CURRENT  
DERATING CURVE

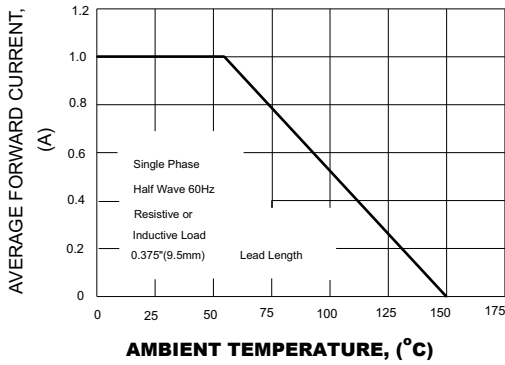


FIG.2-MAXIMUM NON-REPETITIVE PEAK  
FORWARD SURGE CURRENT

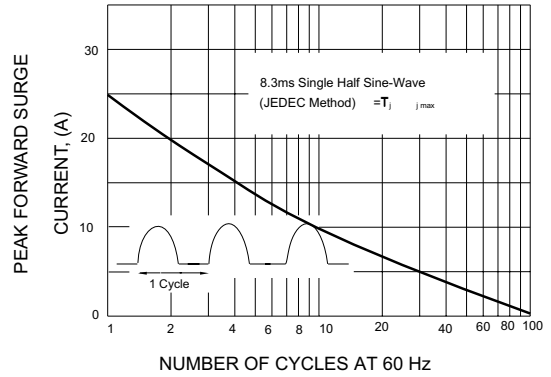


FIG.3-TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS

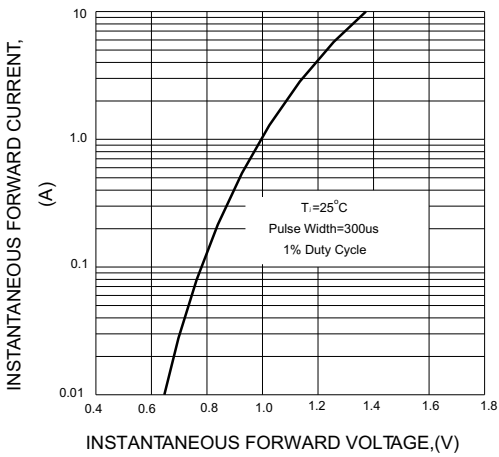


FIG.4-TYPICAL REVERSE  
CHARACTERISTICS

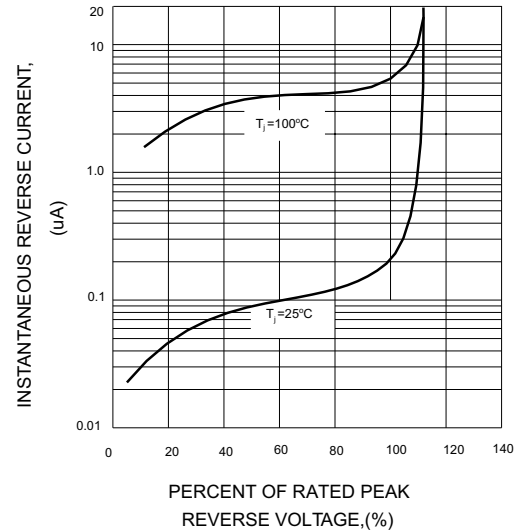
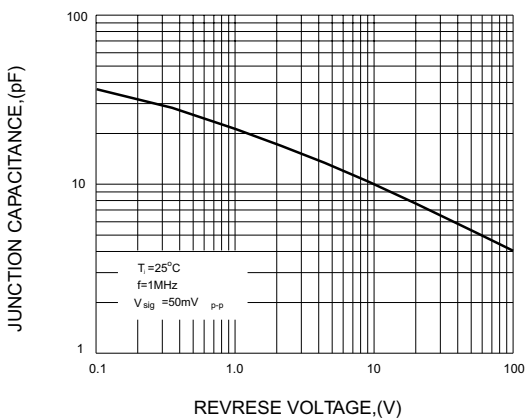


FIG.5-TYPICAL JUNCTION CAPACITANCE





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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel; 5Kpcs/Reel
Part Number-AP	Ammo Packing;5Kpcs/AmmoBox
Part Number-BP	Bulk: 50Kpcs/Carton

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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