



AXIAL SILASTIC GUARD JUNCTION STANDARD RECTIFIER

EM513 THRU EM518

VOLTAGE RANGE
CURRENT

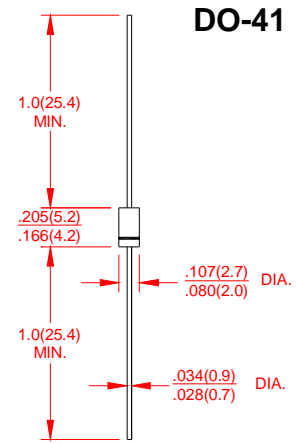
1600 to 2000 Volts
1.0 Ampere

FEATURES

- Low coat construction
- Low forward voltage drop
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed:
260°C/10 secods/.375”(9.5mm)lead length at 5 lbs(2.3kg) tension

MECHANICAL DATA

- Case: Transfer molded plastic
- Epoxy: UL94V-O rate flame retardant
- Polarity: Color band denotes cathode end
- Lead: Plated axial lead, solderable per MIL-STD-202E method 208C
- Mounting position: Any
- Weight: 0.012 ounce, 0.33 grams



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

- Ratings at 25°C ambient temperature unless otherwise specified
- Single Phase, half wave, 60Hz, resistive or inductive load
- For capacitive load derate current by 20%

	SYMBOLS	EM513	EM516	EM518	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1600	1800	1300	Volts
Maximum RMS Voltage	V_{RMS}	1120	1260	1400	Volts
Maximum DC Blocking Voltage	V_{DC}	1600	1800	2000	Volts
Maximum Average Forward Rectified Current 0.375”(9.5mm) lead length at $T_A=25^\circ\text{C}$	$I_{(AV)}$	1.0			Amps
Peak Forward Surge Current 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}	30			Amps
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.1		1.2	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage per element	$T_A = 25^\circ\text{C}$	I_R			μA
	$T_A = 100^\circ\text{C}$				
Maximum Full Load Reverse Current, full cycle average 0.375”(9.5mm)lead length at $T_L=75^\circ\text{C}$	$I_{R(AV)}$	30			μA
Typical Junction Capacitance (Note 1)	C_J	15			pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	50			$^\circ\text{C}/\text{W}$
Operating Junction Temperature Range	T_J	-55 to +150			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150			$^\circ\text{C}$

Notes:

1. Measured at 1.0MHz and Applied Reverse Voltage of 4.0V DC.
2. Thermal Resistance from junction to ambient at .375”(9.5mm) lead length, P.C.board mounted.



AXIAL SILASTIC GUARD JUNCTION STANDARD RECTIFIER

EM513 THRU EM518

**VOLTAGE RANGE
CURRENT**

**1600 to 2000 Volts
1.0 Ampere**

RATING AND CHARACTERISTIC CURVES EM513 Thru EM518

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

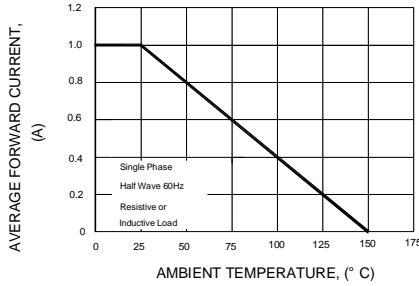


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

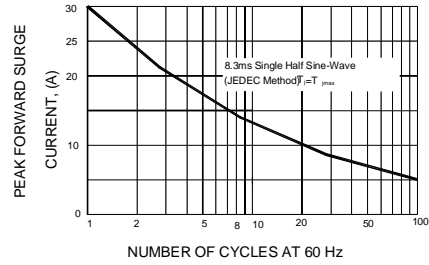


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

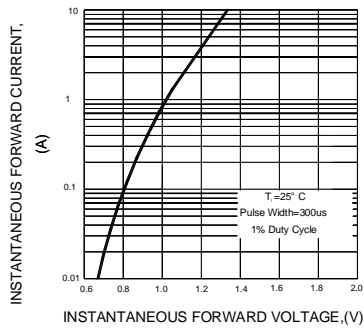


FIG.4-TYPICAL REVERSE CHARACTERISTICS

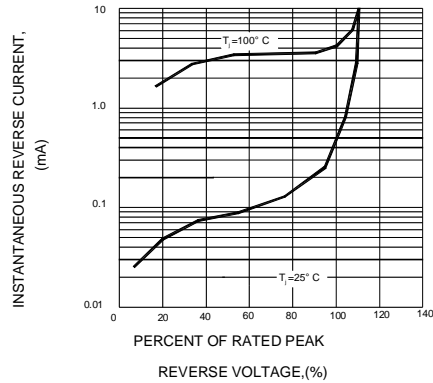


FIG.5-TYPICAL JUNCTION CAPACITANCE

