



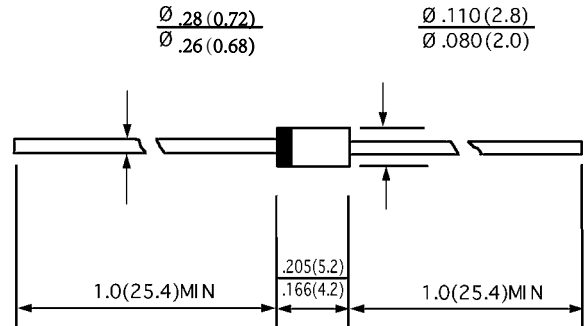
**VOLTAGE RANGE: 1600 --- 2000 V**

**CURRENT: 1.0 A**

**DO - 41**

## Features

- ◇ Molded case feature for auto insertion
- ◇ High current capability
- ◇ Low leakage current
- ◇ High surge capability
- ◇ High temperature soldering guaranteed:  
250°C/10sec/0.375" (9.5mm) lead length at 5 lbs tension



## Mechanical Data

- ◇ Case: JEDEC DO -41, molded plastic
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.012 ounces, 0.34 grams
- ◇ Mounting position: Any

Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		EM513	EM516	EM518	UNITS
Maximum recurrent 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 9.5mm lead length, @ $T_A=75^\circ C$	$I_{F(AV)}$	1.0			A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ C$	$I_{FSM}$	30.0			A
Maximum instantaneous forward voltage @ 1.0 A	$V_F$	1.1			V
Maximum reverse current @ $T_A=25^\circ C$ at rated DC blocking voltage @ $T_A=100^\circ C$	$I_R$	5.0 50.0			$\mu A$
Typical junction capacitance (Note1)	$C_J$	10			pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	50			°C/W
Operating junction temperature range	$T_J$	- 55 ---- + 150			°C
Storage temperature range	$T_{STG}$	- 55 ---- + 150			°C

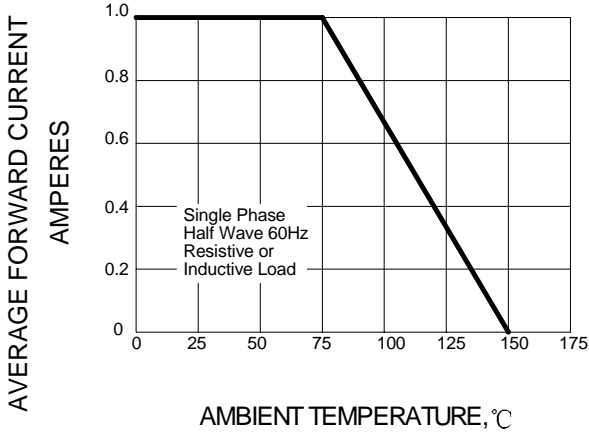
NOTE: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Thermal resistance from junction to ambient at 0.375"(9.5mm) lead length, P.C.board mounted

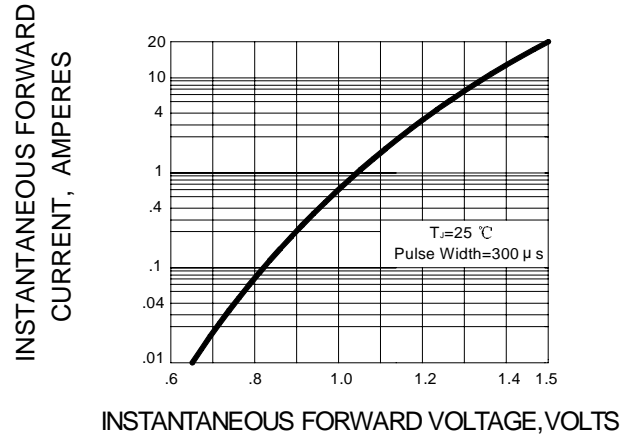


## Ratings AND Characteristic Curves

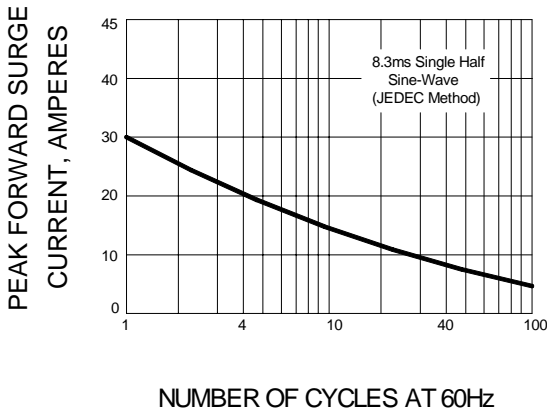
**FIG.1 – TYPICAL FORWARD CURRENT DERATING CURVE**



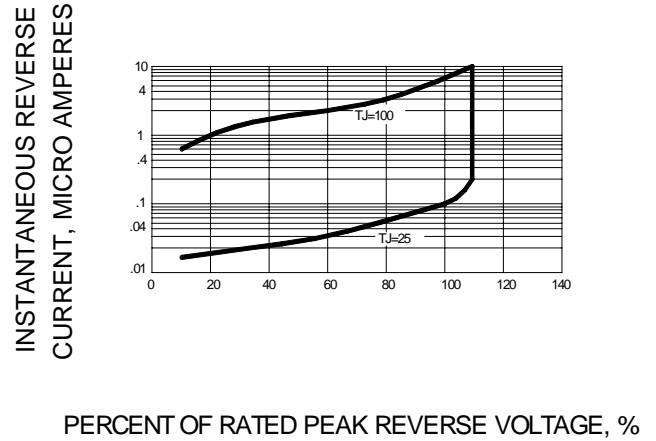
**FIG.2 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



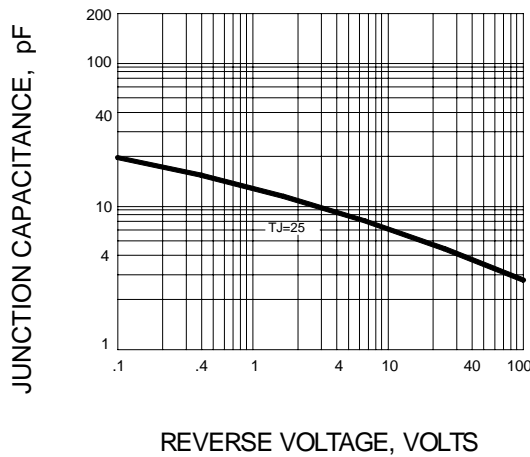
**FIG.3 – MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5 – TYPICAL JUNCTION CAPACITANCE**



PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
DO-41	5000/AMMO	50000	42X28X31	14.00	12.00