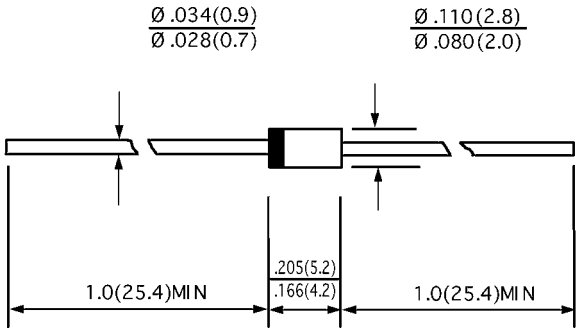
EM513-EM518

Plastic Silicon Rectifiers

VOLTAGE RANGE: 1600 --- 2000 V
CURRENT: 1.0 A

DO - 41



Dimensions in inches and (millimeters)

Features

- Molded case feature for auto insertion
- High current capability
- Low leakage current
- High surge capability
- High temperature soldering guaranteed: 250℃/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: 0.012ounces,0.34 grams
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ 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℃	$I_{F(AV)}$	1.0			A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	30.0			A
Maximum instantaneous forward voltage @ 1.0 A	V_F	1.1			V
Maximum reverse current @T_A=25℃ at rated DC blocking voltage @T_A=100℃	I_R	5.0 50.0			μA
Typical junction capacitance (Note1)	C_J	10			pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	50			℃/W
Operating junction temperature range	T_J	- 55 ---- + 150			℃
Storage temperature range	T_{STG}	- 55 ---- + 150			℃

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

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Ratings AND Charactieristic Curves

FIG.1 -- TYPICAL FORWARD CURRENT DERATING CURVE

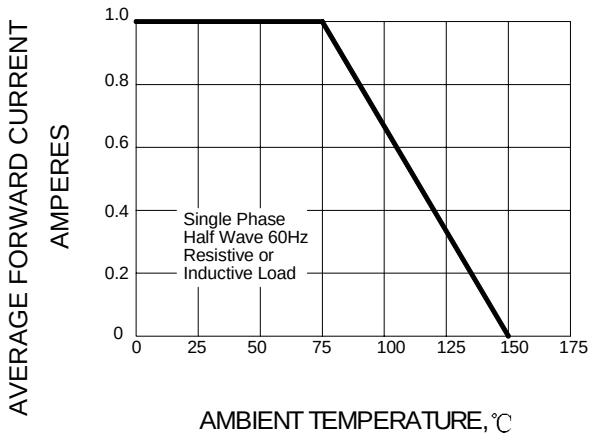

FIG.2 -- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

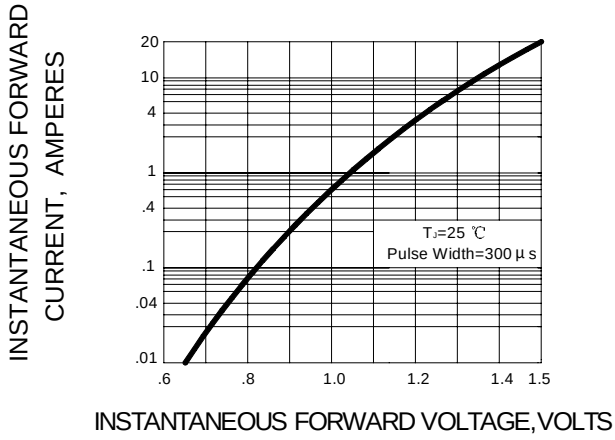

FIG.3 -- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

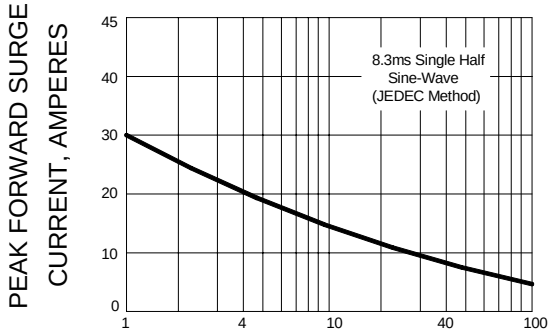

FIG.4 -- TYPICAL REVERSE CHARACTERISTICS

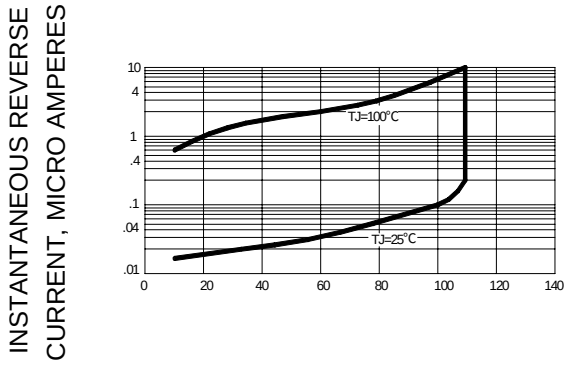

FIG.5 -- TYPICAL JUNCTION CAPACITANCE