

EM513, EM516, EM518

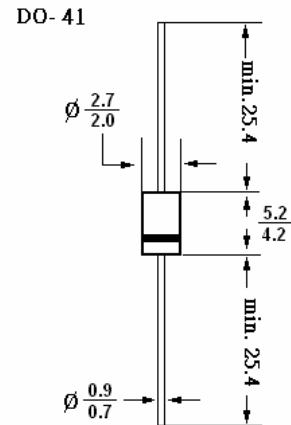
SILICON RECTIFIERS

Reverse Voltage – 1600 to 2000 Volts

Forward Current – 1.0 Ampere

Features

- Plastic case in DO-41 package.



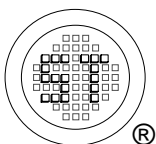
Dimensions in mm

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

	Symbols	EM 513	EM 516	EM 518	Units
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 , .375"(9.5mm) lead length $T_A = 75^\circ\text{C}$	I_{FAV}	1			A
Peak forward surge current , 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30			A
Maximum forward voltage at $I_F = 1.0\text{A DC}$ $T_J = 25^\circ\text{C}$	V_F	1.1			V
Maximum leakage current at $T_A = 25^\circ\text{C}$ at rated DC blocking voltage at $T_A = 100^\circ\text{C}$	I_R	5 500			μA μA
Typical junction capacitance (Note 1)	C_J	15			pF
Typical thermal resistance (Note 2)	R_{thA}	50			K/W
Operating and storage temperature range	T_J, T_S	-55 to +150			$^\circ\text{C}$

Note : 1. Measured at 1MHz and applied reverse voltage of 4.0VDC.

2. Thermal resistance junction to ambient 0.375"(9.5mm) lead length P.C.B. mounted.



SEMTECH ELECTRONICS LTD.

(Subsidiary of Sino-Tech International Holdings Limited, a company listed on the Hong Kong Stock Exchange, Stock Code: 724)



ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116



ISO 9001:2000
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Dated : 06/08/2005 H

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FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

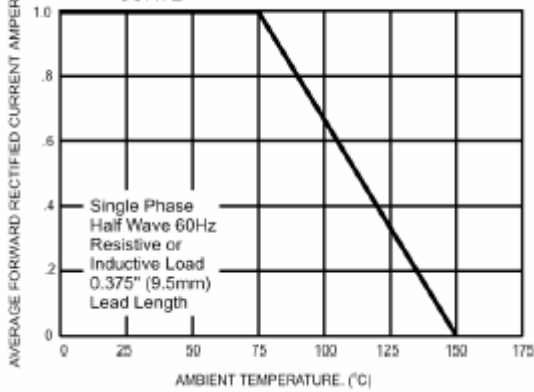


FIG.2- TYPICAL FORWARD CHARACTERISTICS

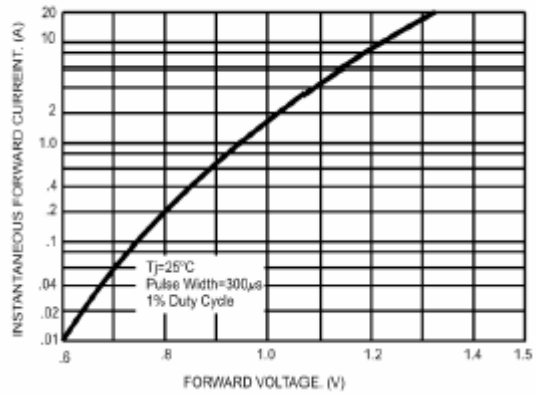


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

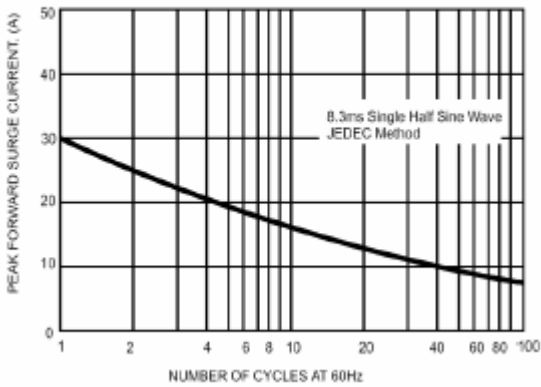


FIG.4- TYPICAL JUNCTION CAPACITANCE

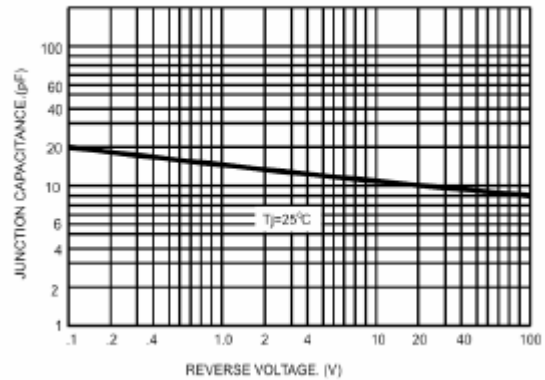
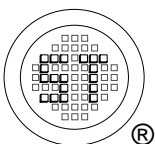
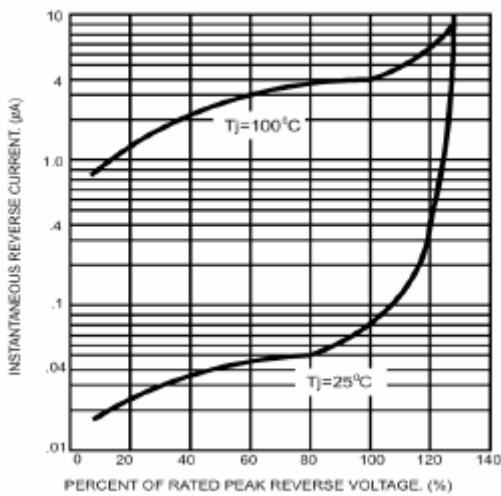


FIG.5- TYPICAL REVERSE CHARACTERISTICS



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