

SILICON RECTIFIERS

Reverse Voltage – 1600 to 2000 Volts

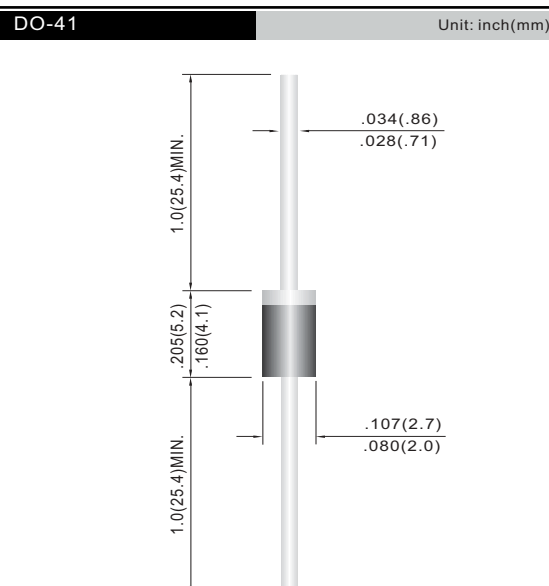
Forward Current – 1.0 Ampere

Features

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability

Mechanical Data

- **Case:** Molded plastic, DO-41
- **Mounting Position:** Any
- **Terminals:** Axial leads, solderable per MIL-STD-202



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

	Symbols	EM513	EM516	EM518	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			$^\circ\text{C/W}$
Operating and storage temperature range	T_J, T_S	-55 to +125			$^\circ\text{C}$

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.

FIG. 1 – FORWARD CURRENT DERATING CURVE

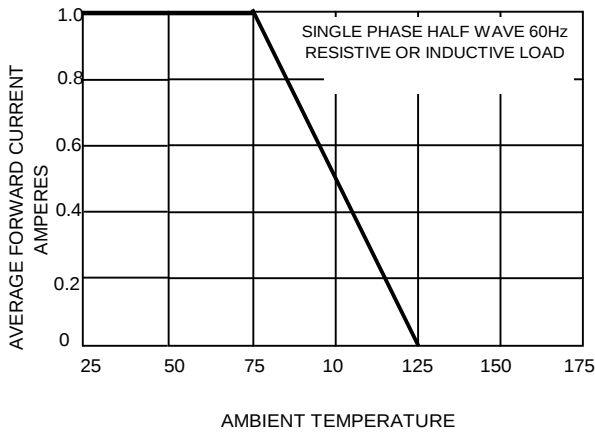


FIG.2-TYPICAL FORWARD CHARACTERISTICS

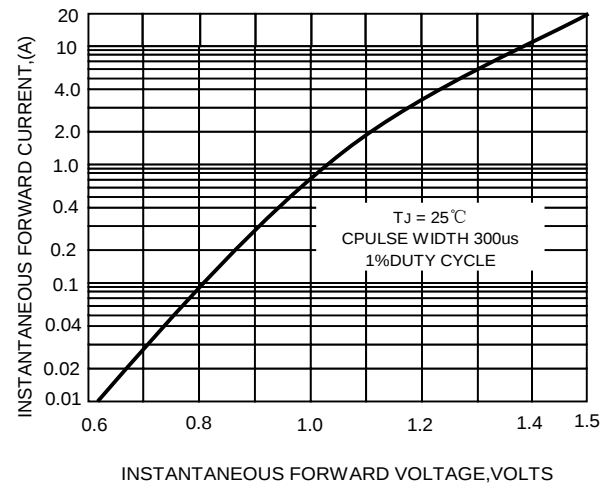


FIG. 3 – MAXIMUM NON-REPETITIVE SURGE CURRENT

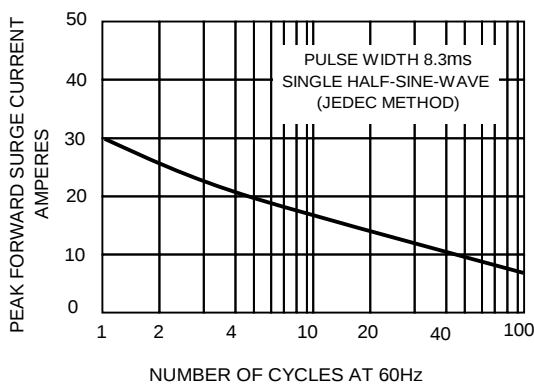


FIG.6-TYPICAL REVERSE CHARACTERISTICS

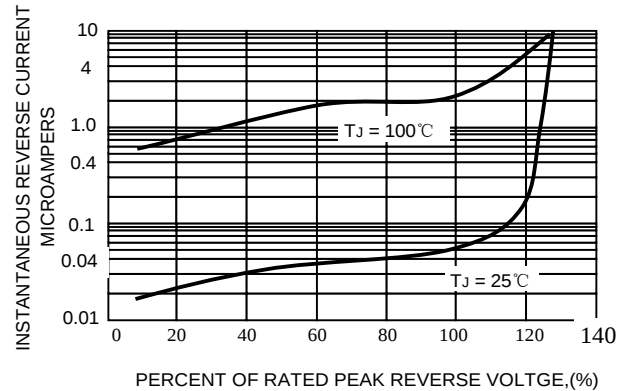


FIG.5 – TYPICAL JUNCTION CAPACITANCE

