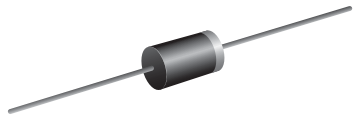
SUNMATE SEMICONDUCTORCO · LIMITED

EM01Z - EM01A

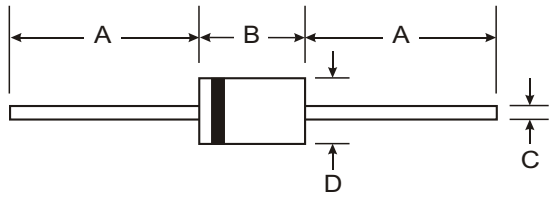
AXIAL LEADED SILICON RECTIFIER DIODES

VOLTAGE RANGE: 200 - 600V
CURRENT: 1.0 A



Features

- Low cost
- Diffused junction
  Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Freon,Alcohol,Isopropanol
- and similar solvents
  The plastic material carries U/L recognition 94V-0



DO-41		
Dim	**Min**	**Max**
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

Mechanical Data

- Case: D O - 4 1 Molded Plastic
- Terminals: Plated Leads Solderable per
  MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

RoHS COMPLIANT

Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

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

Characteristic	Symbol	EM01Z	EM01	EM01A	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	200	400	600	V
Maximum RMS voltage	V_{RMS}	140	280	420	V
Maximum DC blocking voltage	V_{DC}	200	400	600	V
Maximum average forw ard rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	1.0			A
Peak forw ard surge current 8.3ms single half-sine-w ave superimposed on rated load @T_J=125℃	I_{FSM}	45.0			A
Maximum instantaneous forw ard voltage @ 1.0 A	V_F	0.97			V
Maximum reverse current @T_A=25℃	I_R	5.0			μA
at rated DC blocking voltage @T_A=100℃		50.0			
Typical junction capacitance (Note1)	C_J	15			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.

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FIG.1 – FORWARD DERATING CURVE

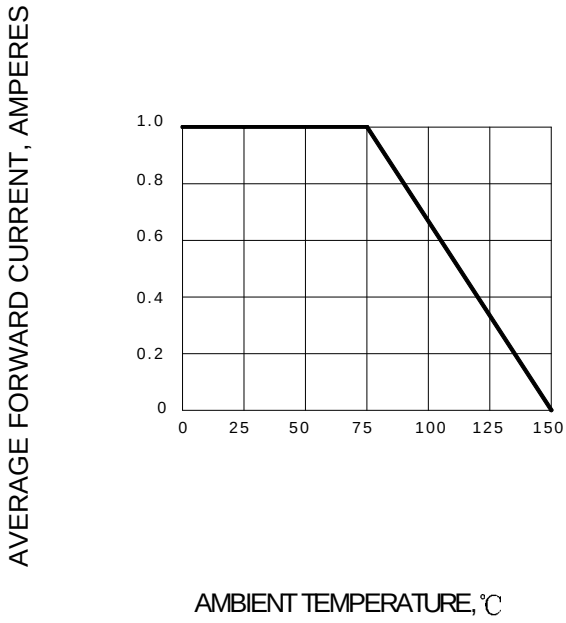

FIG.2 – TYPICAL FORWARD CHARACTERISTICS

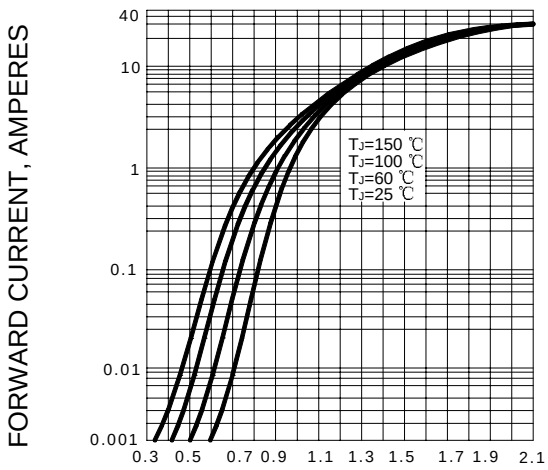

FIG.3 – FORWARD SURGE CURRENT

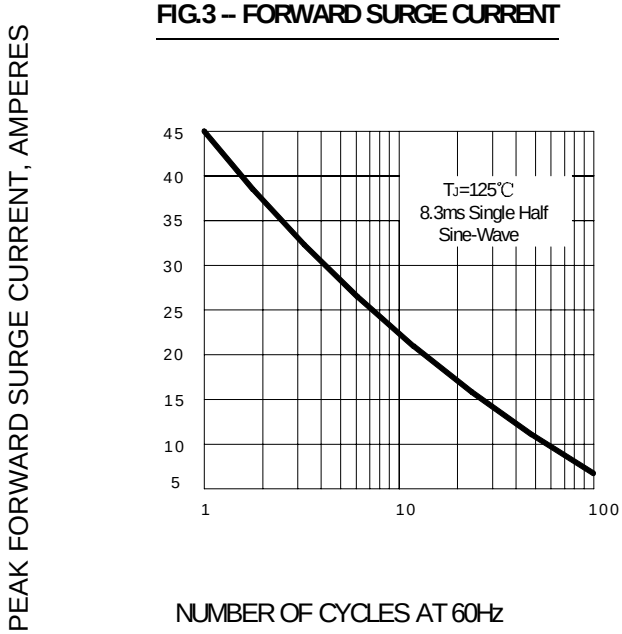

FIG.4--TYPICAL JUNCTION CAPACITANCE