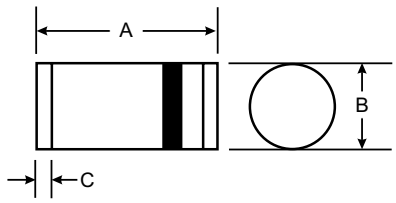
SM4001 - SM4007

SURFACE MOUNT SILICON RECTIFIER DIODES

VOLTAGE RANGE: 50 - 1000V
CURRENT: 1.0 A

Features

- Glass Passivated Junction
- High Current Capability
- Low Forward Voltage Drop
- High Reliability and Low Leakage
- For Surface Mount Application
- Plastic Material - UL Flammability Classification Rating 94V-0



LL41/ DO-213AB		
Dim	**Min**	**Max**
A	4.80	5.20
B	2.40	2.60
C	0.55 Nominal	
All Dimensions in mm		

Mechanical Data

- Case: LL41(DO-213AB), Plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode band
- Approx Weight: 0.25 grams
- Mounting Position: Any

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	SM4001	SM4001	SM4002	SM4004	SM4005	SM4006	SM4007	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T_L=100 ℃	$I_{(AV)}$	1.0							A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	I_{FSM}	30							A
Maximum Forward Voltage at 1.0A DC	V_F	1.1							V
Maximum DC Reverse Current @T_J=25℃ at Rated DC Blocking Voltage @T_J=100℃	I_R	5.0 100							uA
Typical Junction Capacitance (Note1)	C_J	10							pF
Typical Thermal Resistance (Note2)	R_{JC}	30							℃/W
Operating Temperature Range	T_J	-55 to +125							℃
Storage Temperature Range	T_{STG}	-55 to +125							℃

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

2.Thermal resistance junction to lead.

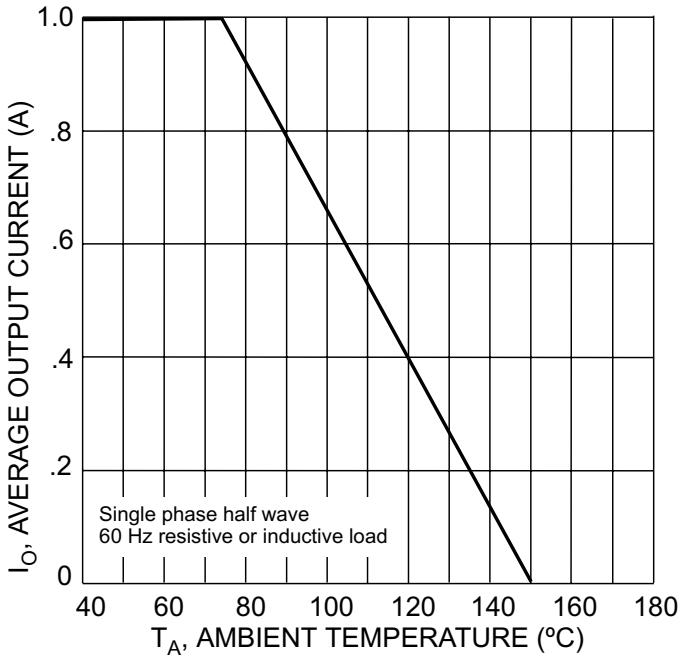


Fig. 1 Forward Current Derating Curve

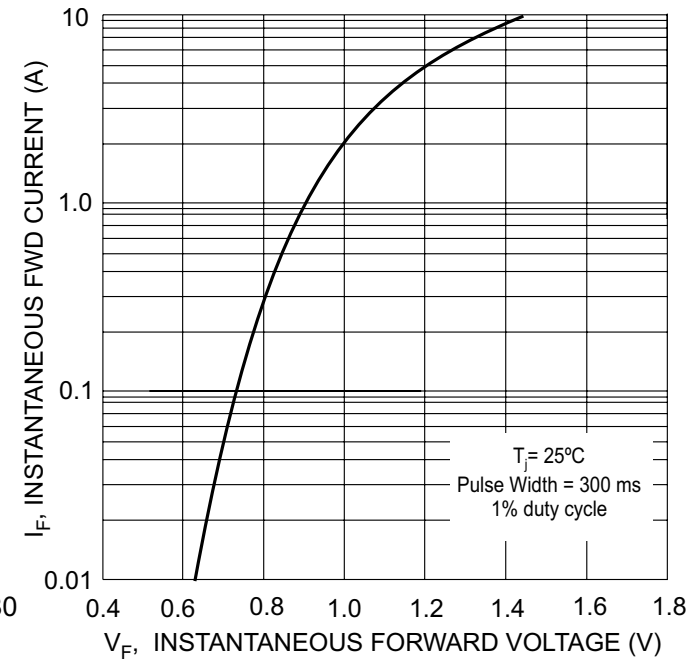


Fig. 2 Typical Forward Characteristics

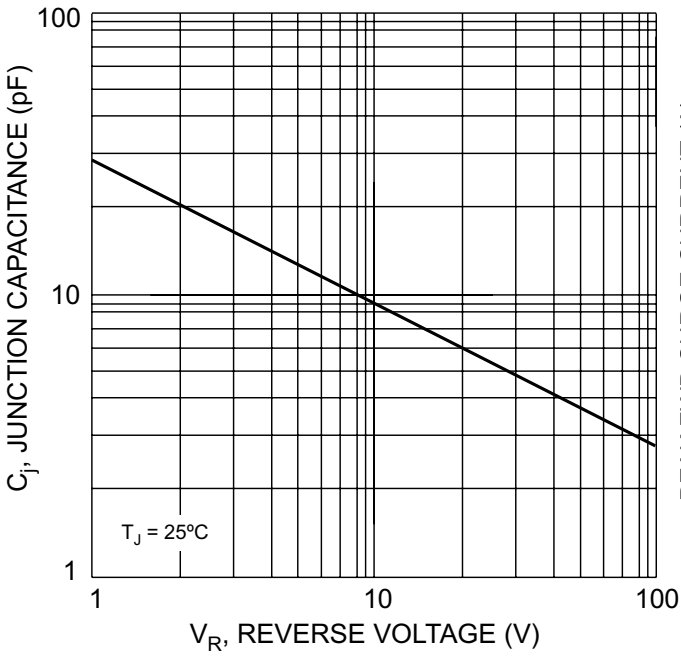


Fig. 3 Typical Junction Capacitance

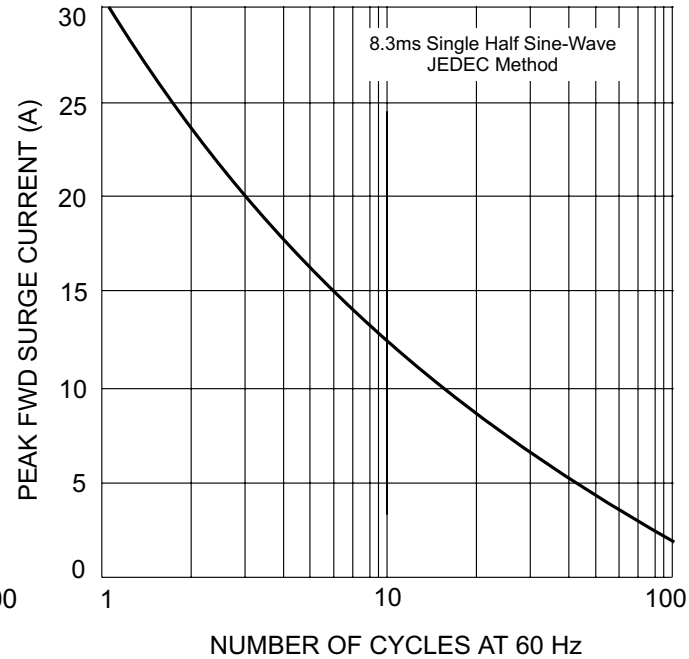


Fig. 4 Max Non-Repetitive Peak Fwd Surge Current