



SEMICONDUCTOR

# DATA SHEET

## SM4001 THRU SM4007

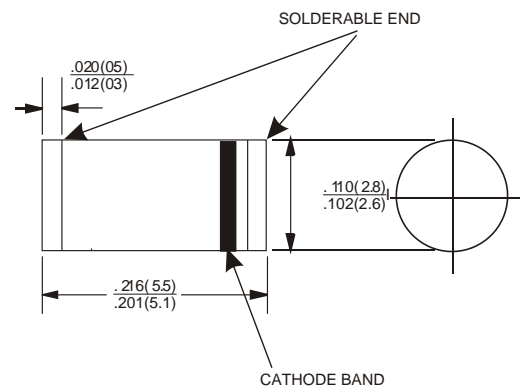
### 1.0AMP General Purpose Rectifiers Glass Passivation Junction



#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O Utilizing Flame Retardant Epoxy Molding Compound.
- For surface mounted applications.
- Exceeds environmental standards of MIL-S-19500 /228
- Low leakage current.
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

MELF /DL41 Unit:inch(mm)



#### MECHANICAL DATA

- Case : Molded plastic, SMD (MELF)
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Indicated by cathode band
- Mounting Position : Any

#### MAXIMUM RATINGS (AT TA=25°C unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.2	IO			1.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	IFSM			30	A
Reverse current	VR = VRRM TA = 25 °C	IR			5.0	μA
	VR = VRRM TA = 100 °C				50	μA
Thermal resistance	Junction to ambient	RθJA		50		° C/W
Diode junction capacitance	f=1MHz and applied 4vDC reverse voltage	CJ		15		pF
Storage temperature		TSTG	-55		+150	°C

SYMBOLS	MARKING CODE	V RRM *1 (V)	V RMS *2 (V)	V R *3 (V)	V F *4 (V)	Operating temperature (°C )
SM4001	-	50	35	50	1.1	-55 to +150
SM4002	-	100	70	100		
SM4003	-	200	140	200		
SM4004	-	400	280	400		
SM4005	-	600	420	600		
SM4006	-	800	560	800		
SM4007	-	1000	700	1000		

- 1 Repetitive peak reverse voltage
- 2 RMS voltage
- 3 Continuous reverse voltage
- 4 Maximum forward voltage

# RATING AND CHARACTERIS TIC CURVES

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FIG.1-TYPICAL FORWARD CHARACTERISTICS

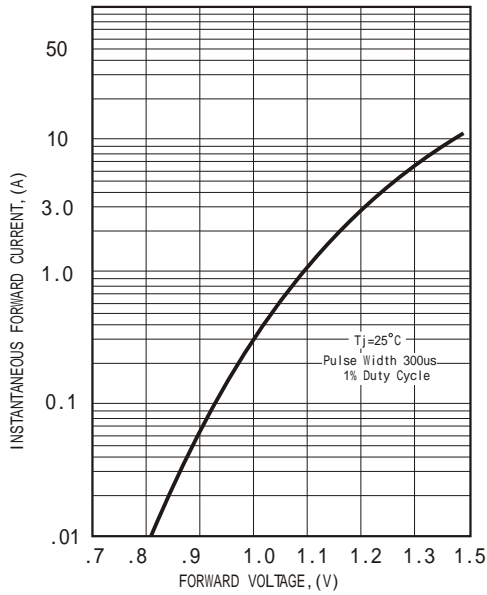


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

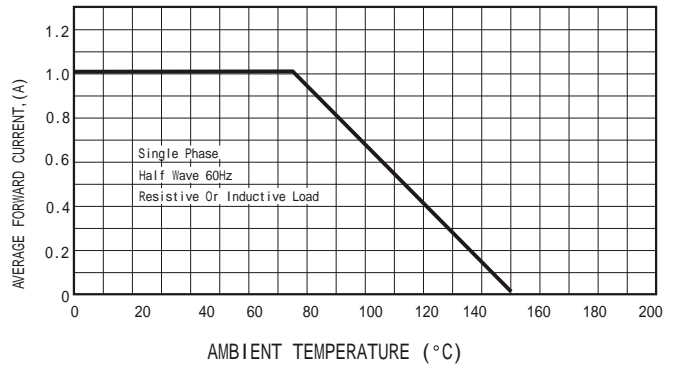


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

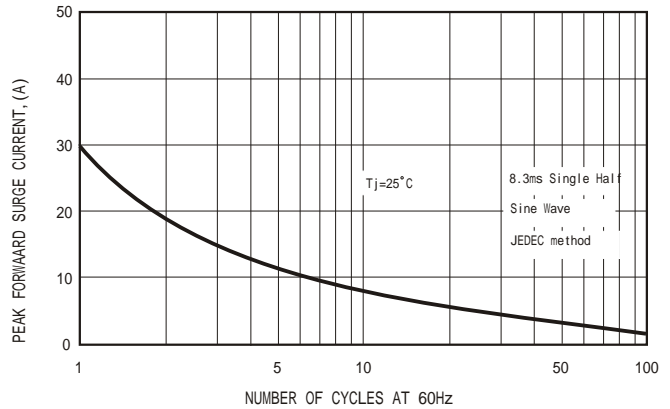


FIG.3 - TYPICAL REVERSE CHARACTERISTICS

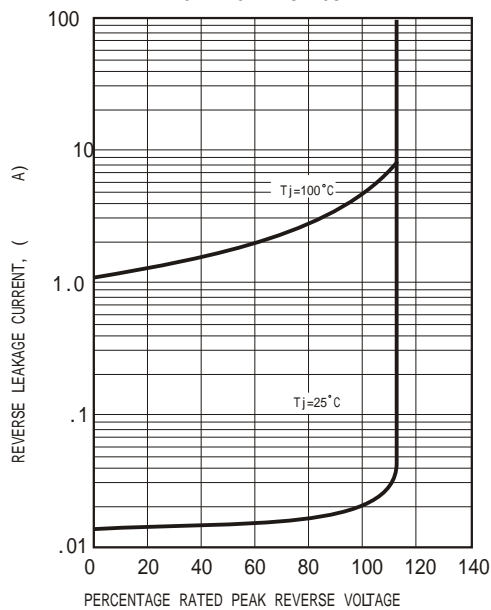


FIG.5-TYPICAL JUNCTION CAPACITANCE

