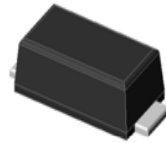


## Features

- Glass passivated Standard Rectifiers
- Very low profile - typical height of 1.0 mm
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- AEC-Q101 qualified
- High temperature soldering guaranteed: 260°C/10 seconds
- Halogen-free according to IEC 61249-2-21 definition



RoHS  
COMPLIANT



eSGA  
(SOD-123FL)

## Typical Applications

For use of general purpose rectification in lighting, cellular phone, portable device, power supplies and other consumer applications.

Maximum Ratings (TA = 25 °C unless otherwise noted)									
Parameter	Symbol	F1DS	F2DS	F3DS	F4DS	F5DS	F6DS	F7DS	Unit
Maximum repetitive peak reverse voltage	VRRM	50	100	200	400	600	800	1000	V
Maximum RMS voltage	VRMS	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	VDC	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	IF(AV)	1.0							A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	25							A
Operating junction and storage temperature range	TJ, TSTG	- 55 to + 150							°C

Electrical Characteristics (TA = 25 °C unless otherwise noted)										
Parameter	Test Conditions	Symbol	F1DS	F2DS	F3DS	F4DS	F5DS	F6DS	F7DS	Unit
Maximum instantaneous forward voltage	1 A	V <sub>F</sub>	1.1						Volts	
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I <sub>R</sub>	5						μA	
	TA=125°C		50							
Typical reverse recovery time	I <sub>F</sub> =0.5A, I <sub>R</sub> =1.0A, I <sub>rr</sub> =0.25A	t <sub>rr</sub>	1.8						uS	
Typical junction capacitance	4.0 V, 1 MHz	C <sub>J</sub>	6						pF	
Typical thermal resistance <sup>1)</sup>	junction to ambient	R <sub>θJA</sub>	80						°C/W	
	junction to case	R <sub>θJC</sub>	50							
	junction to mount	R <sub>θJM</sub>	10							

Note 1), The thermal resistance from junction to ambient, case or mount, mounted on P.C.B with 5x5mm copper pads, 2 OZ, FR4 PCB



# F1DS thru F7DS

Surface Mount Glass Passivated Standard Rectifier  
 Reverse Voltage 50~1000V Forward Current 1A

## Package Outline Dimensions

(TA = 25°C unless otherwise noted)

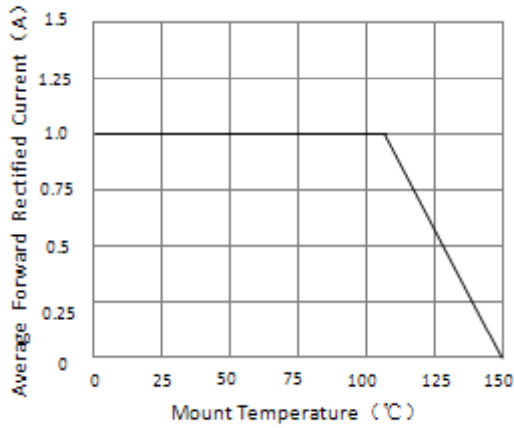


Figure 1. Forward Current Derating Curve

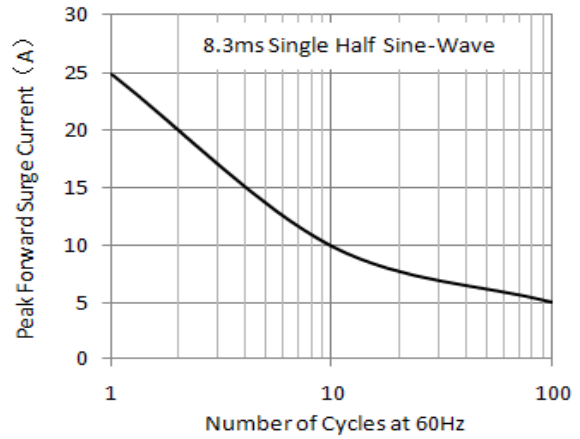


Figure 2. Maximum Non-Repetitive Peak Forward Surge Current

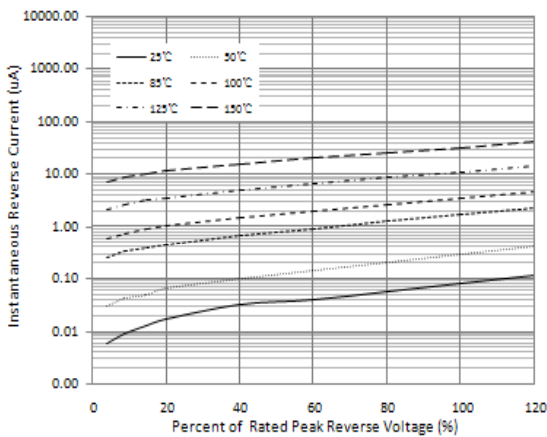


Figure 3. Typical Reverse Characteristics

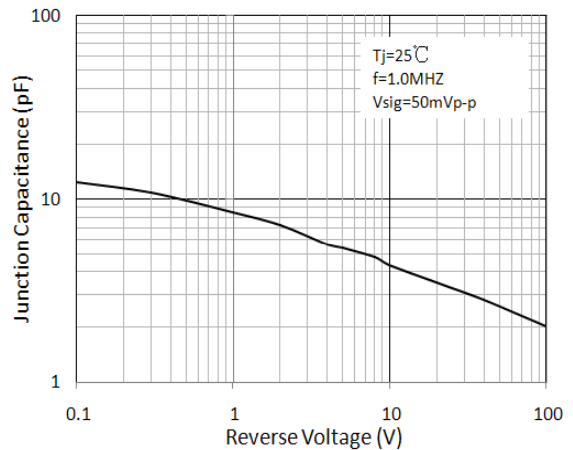


Figure 4. Typical Junction Capacitance

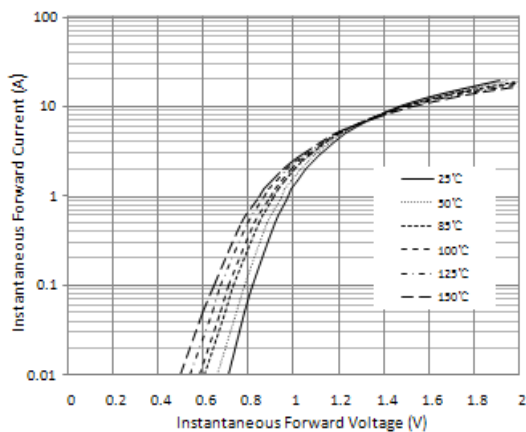


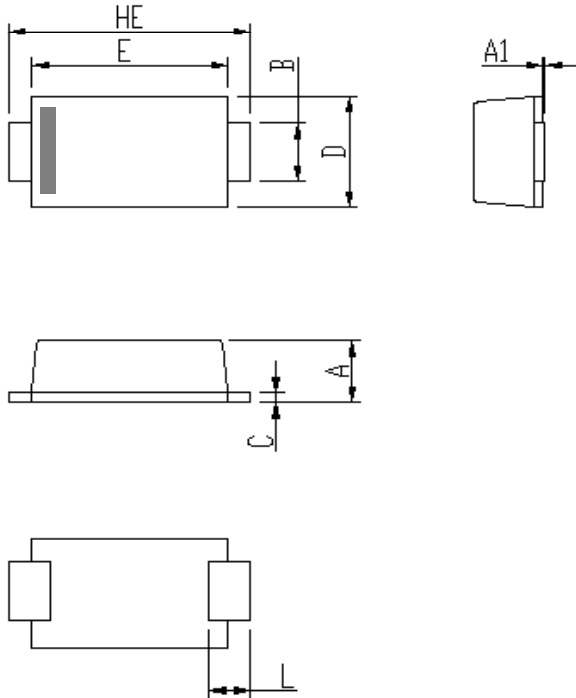
Figure 5. Typical Instantaneous Forward Characteristics



# F1DS thru F7DS

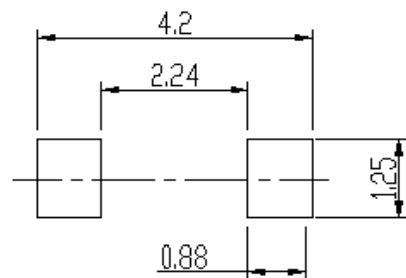
Surface Mount Glass Passivated Standard Rectifier  
 Reverse Voltage 50~1000V Forward Current 1A

## Package Outline Dimensions



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
A	0.9	1.08	0.035	0.043
A1	0	0.1	0.000	0.004
B	0.85	1.05	0.033	0.041
C	0.1	0.25	0.004	0.010
D	1.7	2	0.067	0.079
E	2.9	3.1	0.114	0.122
L	0.43	0.83	0.017	0.033
HE	3.5	3.9	0.138	0.154

Soldering footprint

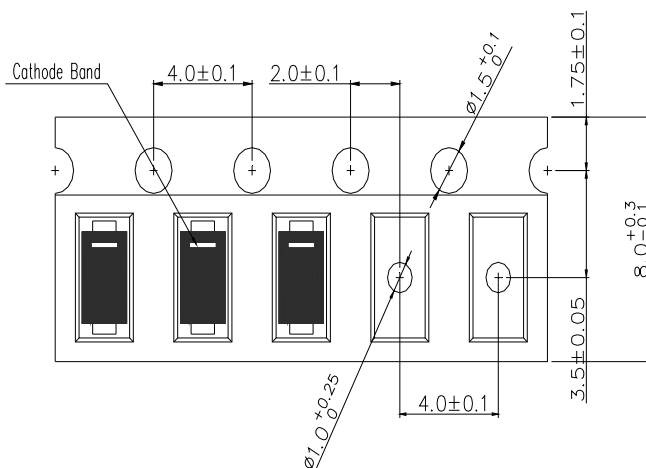


## Packing Information

### Packing quantities:

3000 pcs/Reel, 40 Reels/Box; 8mm Tape, 7" Reel

### Tape & Reel Specification





# F1DS thru F7DS

Surface Mount Glass Passivated Standard Rectifier  
Reverse Voltage 50~1000V Forward Current 1A

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