

## Features

- Low Profile Package
- Glass Passivated Chip Junction
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates RoHS Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 2)

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 25°C/W Junction to Lead<sup>(Note 3)</sup>
- Maximum Thermal Resistance: 75°C/W Junction to Ambient<sup>(Note 3)</sup>

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
ES1DFL	ES1D	200V	140V	200V
ES1GFL	ES1G	400V	280V	400V
ES1JFL	ES1J	600V	420V	600V
ES1KFL	ES1K	800V	560V	800V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

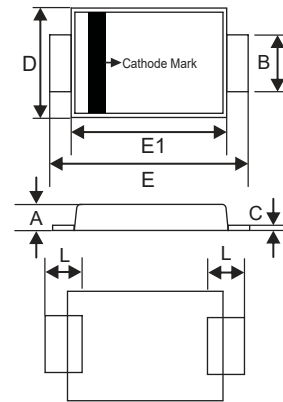
Average Forward Current	$I_{F(AV)}$	1.0A	$T_L=120^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	ES1DFL: 1.0V ES1GFL: 1.3V ES1JFL: 1.7V ES1KFL: 1.85V	$I_{FM}=1.0\text{A}; T_A=25^\circ\text{C};$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0 $\mu\text{A}$ 100 $\mu\text{A}$	$T_A=25^\circ\text{C};$ $T_A=125^\circ\text{C}$
Maximum Reverse Recovery Time	$t_{rr}$	35ns	$I_F=0.5\text{A}; I_R=1.0\text{A};$ $I_{rr}=0.25\text{A}$

Note :

1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7a.
2. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
3. Thermal Resistance From Junction to Ambient and From Junction to Lead Mounted on P.C.B. With 0.2" x 0.2" (5.0 mm x 5.0 mm) Copper Pad Areas.

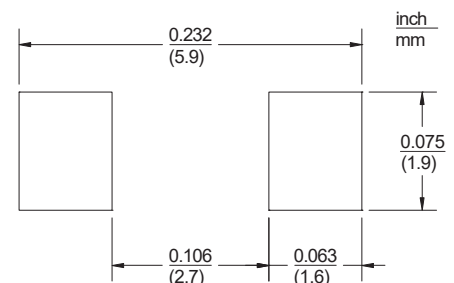
# 1 Amp Super Fast Recovery Rectifier 200 to 800 Volts

## DO-221AC(SMA-FL)



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.035	0.049	0.90	1.25	
B	0.049	0.065	1.25	1.65	
C	0.004	0.016	0.10	0.40	
D	0.089	0.116	2.25	2.95	
E	0.173	0.220	4.40	5.60	
E1	0.126	0.181	3.20	4.60	
L	0.020	0.059	0.50	1.50	

## SUGGESTED SOLDER PAD LAYOUT



**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

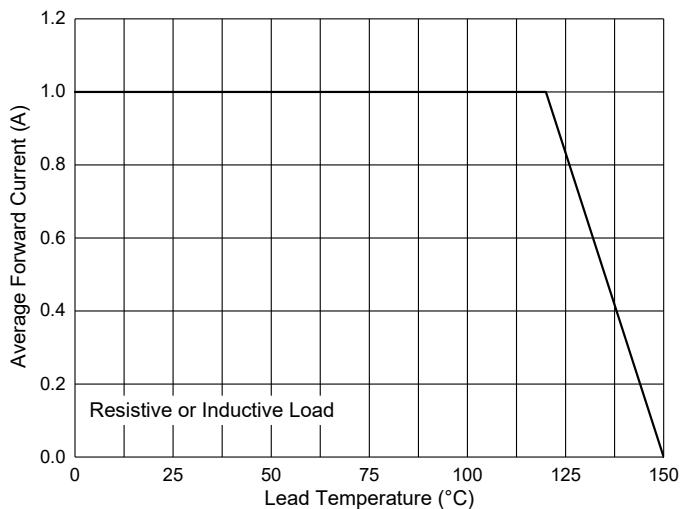


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

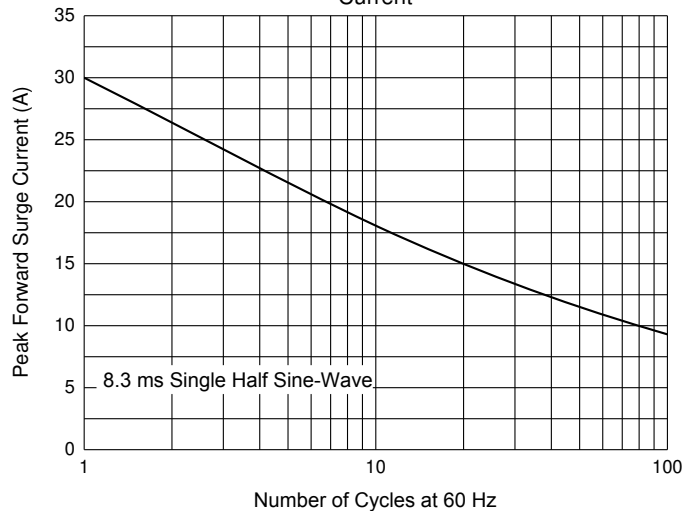


Fig. 3 - Typical Instantaneous Forward Characteristics

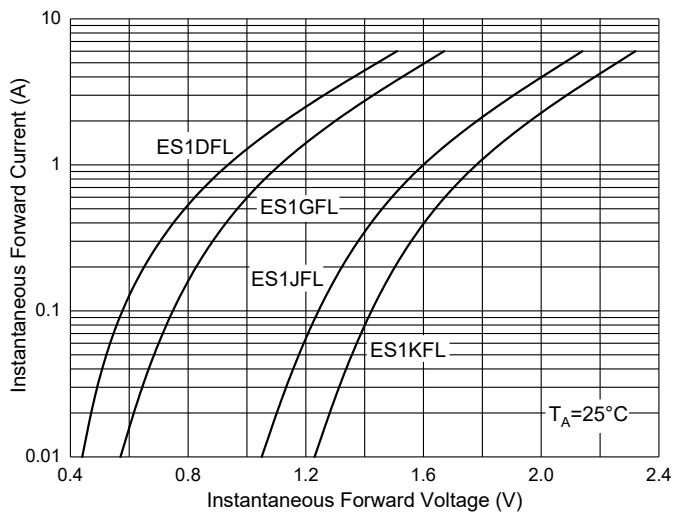
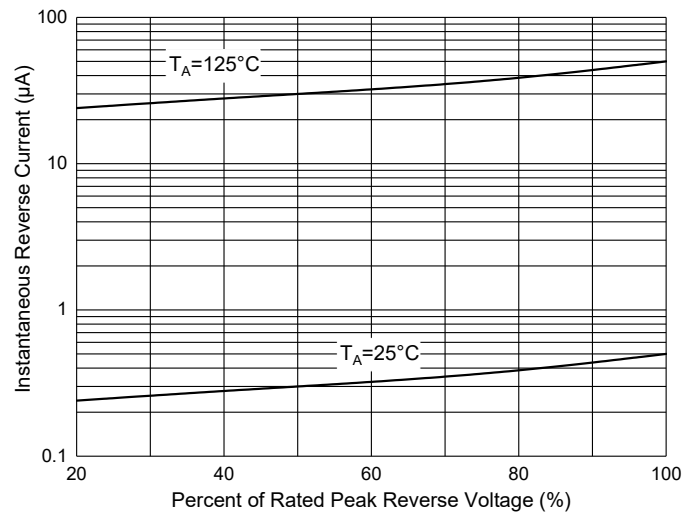


Fig. 4 - Typical Reverse Leakage Characteristics



## Ordering Information

Device	Packing
Part Number -TP	Tape&Reel: 10Kpcs/Reel

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