

## Features

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

## Maximum Ratings @ 25°C (Unless Otherwise Specified)

Parameter	Symbol	Value							Unit
		FS 2AFL	FS 2BFL	FS 2DFL	FS 2GFL	FS 2JFL	FS 2KFL	FS 2MFL	
Peak Repetitive Reverse Voltage	$V_{RRM}$								V
Working Peak Reverse Voltage	$V_{RWM}$	50	100	200	400	600	800	1000	
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ $T_L=100^\circ\text{C}$	$I_{F(AV)}$	2							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	$I_{FSM}$	50							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		100							
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$	$I^2t$	10.375							$\text{A}^2\text{s}$

## Marking Code

Part Number	Marking Code
FS2AFL	FS2A
FS2BFL	FS2B
FS2DFL	FS2D
FS2GFL	FS2G
FS2JFL	FS2J
FS2KFL	FS2K
FS2MFL	FS2M

## Internal Structure

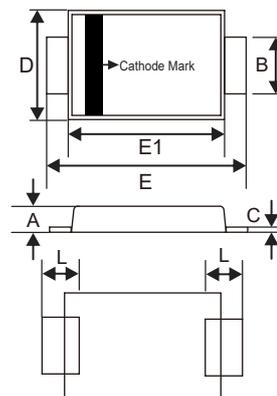
Pin	Description	Simplified Outline	Graphic Symbol
1	Cathode	 <p>XXXX = Marking Code</p>	
2	Anode		

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High temperature solder exemption applied, see EU directive annex 7a.

# 2 Amp Fast Recovery Rectifier 50 to 1000 Volts

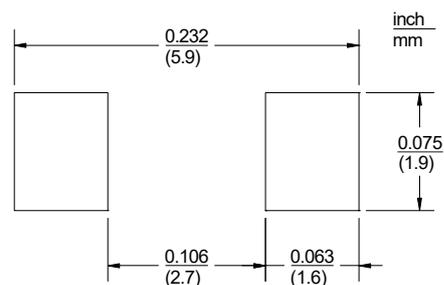
## DO-221AC(SMA-FL)



### DIMENSIONS

DIM	INCHES		MM		NOTE
	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



## Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
$T_J$	Operating Junction Temperature Range		-55		150	°C
$T_{stg}$	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		20		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		70		°C/W

Note:

1. Mounted on P.C.B. with 8mm\*8mm copper pad areas.

## Electrical Characteristics @ 25°C Unless Otherwise Specified

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	$V_F$	$I_F=2A; T_J=25^\circ C$			1.30	V
Reverse Current	$I_R$	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			5 100	$\mu A$
Reverse Recovery Time	$t_{rr}$	$I_F=0.5A; I_R=1.0A;$ $I_{rr}=0.25A; T_J=25^\circ C$			150 250 500	ns
Junction Capacitance	$C_J$	$V_R=4V; f=1MHz; T_J=25^\circ C$		18 11		pF

**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

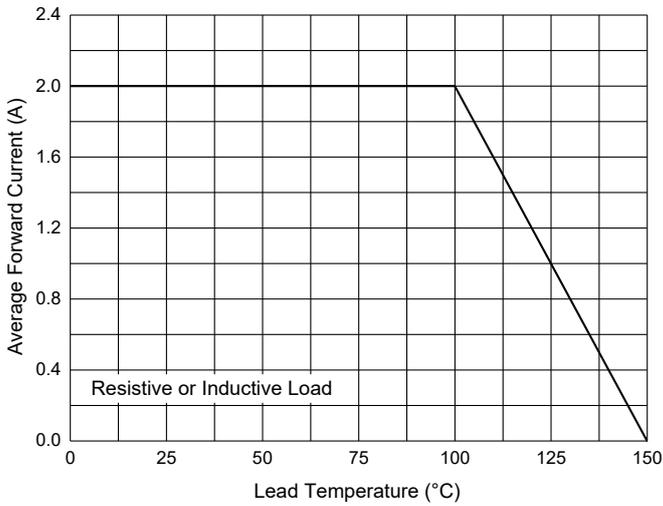


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

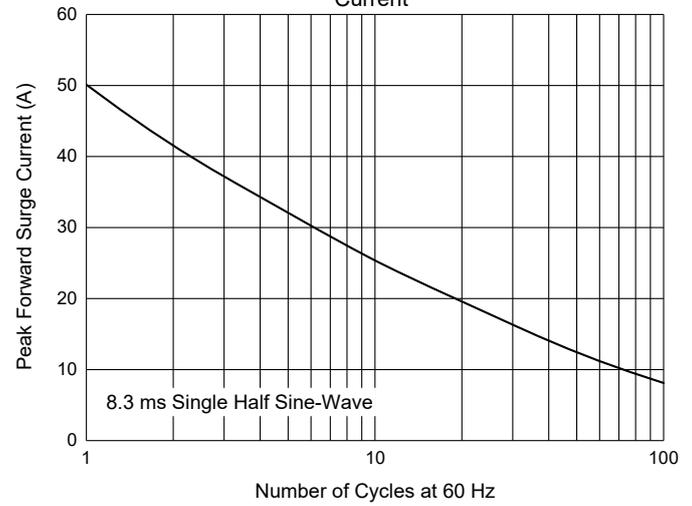


Fig. 3 - Typical Forward Characteristics

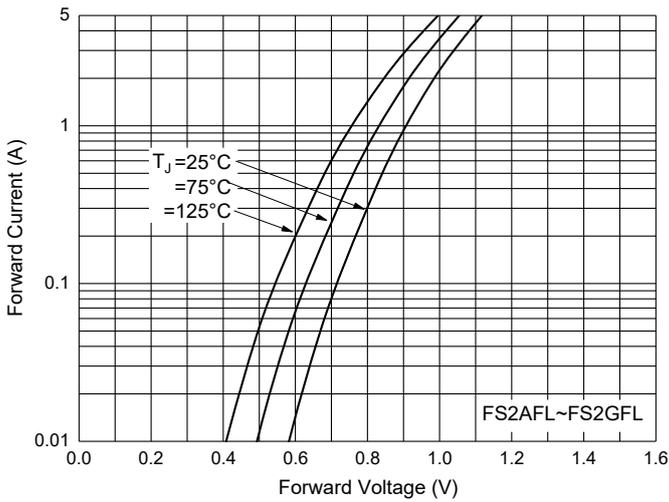


Fig. 4 - Typical Forward Characteristics

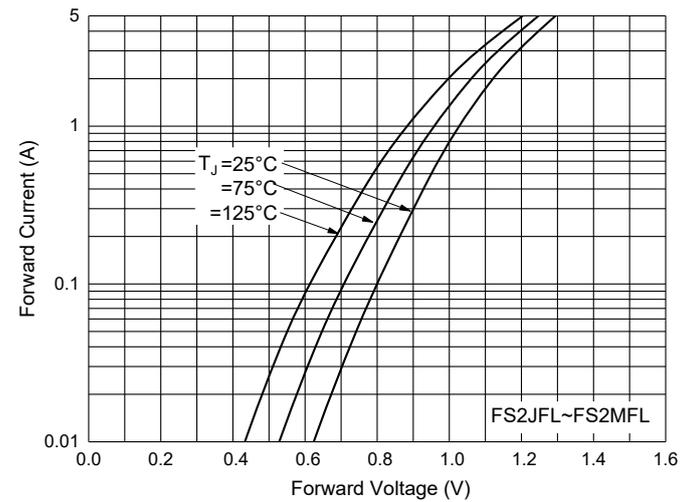


Fig. 5 - Typical Reverse Leakage Characteristics

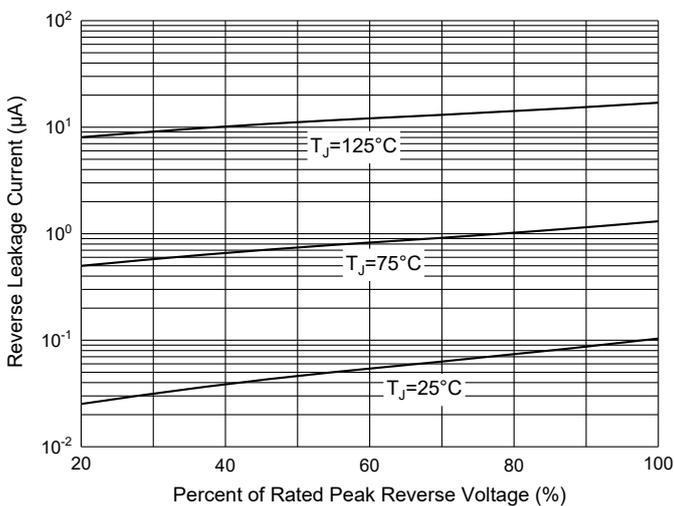
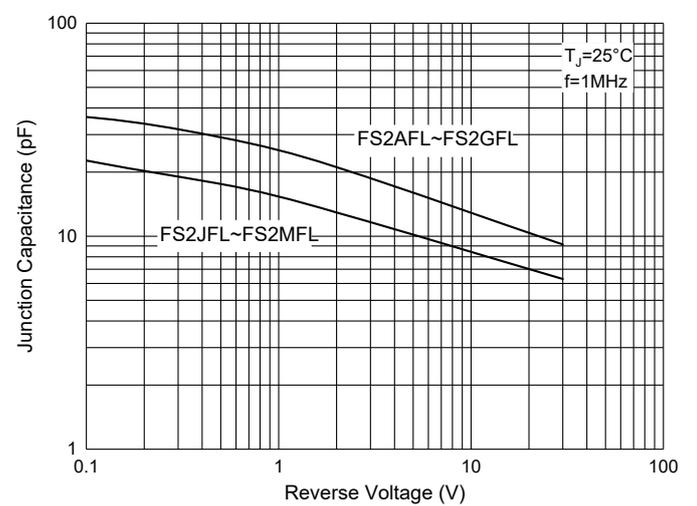


Fig. 6 - Typical Capacitance Characteristics



## Ordering Information

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

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