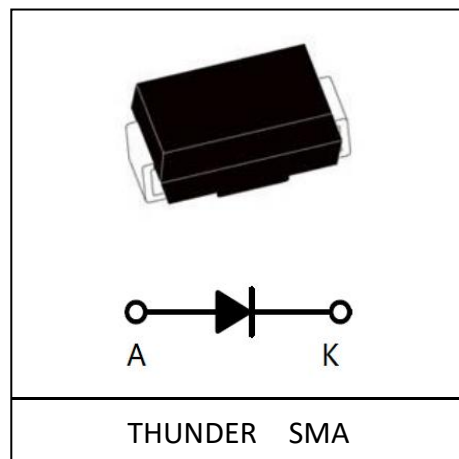


## Planar Epitaxial Type FRED Hyperfast Soft Recovery Diode, 1A

### Features:

- Hyperfast Recovery
- 175°C operating junction temperature
- High frequency operation
- Low power loss, less RFI and EMI
- Low  $I_R$  value
- High surge capacity

Product Summary	
$V_R$	600 V
$I_{F(AV)}$	1A
$t_{rr}$	13ns ( typ )



### Description/Applications

These diodes are optimized to less losses and EMI/RFI in high frequency power conditioning system. The soft recovery behavior of the diodes offers the need as snubber in most applications. These devices are ideally suited for SMT welding power converters and other applications where the switching losses are not significant portion of the total losses.

### Absolute Maximum Ratings

Parameter	Symbol	Test Conditions	Values	Unit
Repetitive peak reverse voltage	$V_{RRM}$		600	V
Continuous forward current	$I_{F(AV)}$	$T_c = 110^\circ\text{C}$	1	A
Single pulse forward current	$I_{FSM}$	$T_c = 25^\circ\text{C}$	55	
Maximum repetitive forward current	$I_{FRM}$	Square wave, 20kHz	4	
Operating junction	$T_j$		175	$^\circ\text{C}$
Storage temperatures	$T_{stg}$		-55 to +150	$^\circ\text{C}$

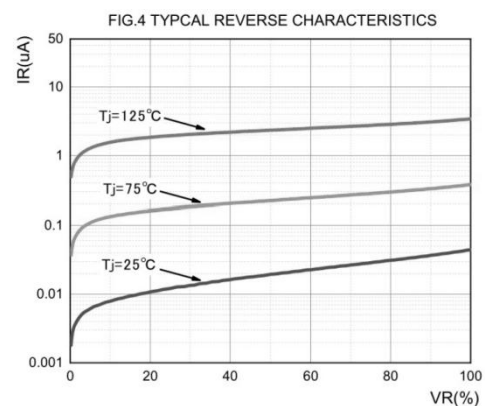
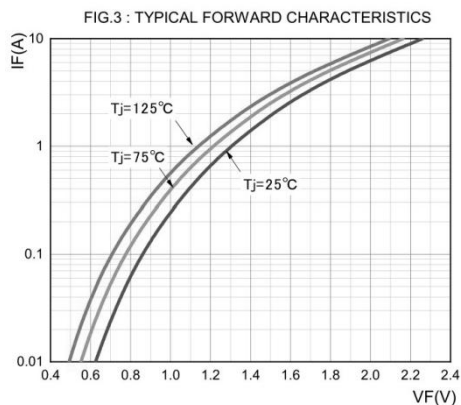
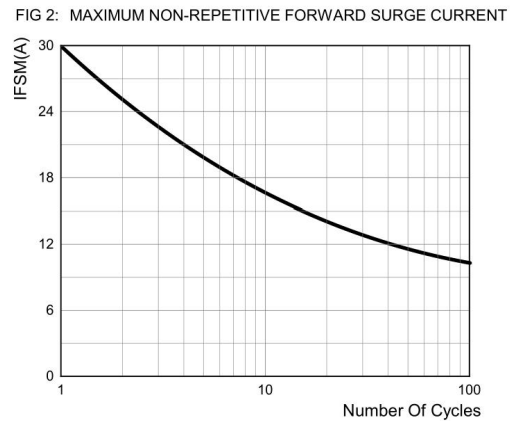
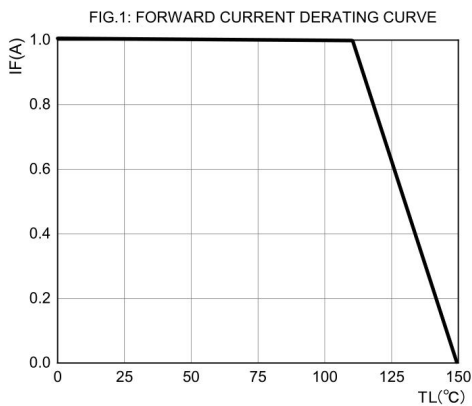
### Electrical characteristics (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Breakdown voltage Blocking voltage	$V_{BR}$ , $V_R$	$I_R=100\mu A$	600			V
Forward voltage	$V_F$	$I_F=1A, T_j=25^\circ C$		1.65		
		$I_F=1A, T_j=100^\circ C$		1.55		
Reverse leakage current(Per Diode)	$I_R$	$V_R=V_{RRM}, T_j=25^\circ C$			5	$\mu A$
		$T_j=100^\circ C, V_R=600V$			100	
Reverse recovery time(Per Diode)	$t_{rr}$	$I_F=0.5A, I_R=1A, I_{RR}=0.25A$		16		ns
		$I_F=1A, V_R=30V, di/dt=200A/us$		13		

### Thermal characteristics

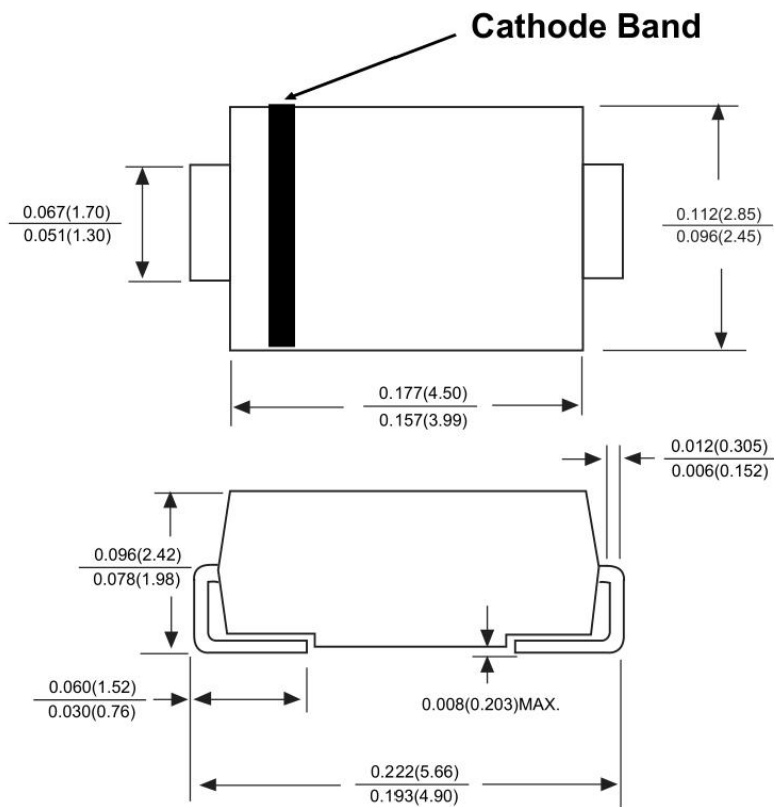
Paramter	Symbol	Typ.	Unit
$R_{\theta JL}$	Typical Thermal Resistance	27	$^\circ C/W$

### Electrical performance (typical)



## Package Information

### SMA PACKAGE



Dimensions in inches and (millimeters)

## Notice

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