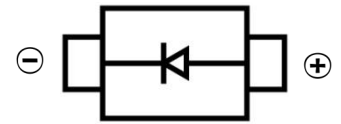


FAST RECOVERY RECTIFIER DIODE
FEATURES

- Low Reverse voltage leakage current
- Glass passivated junction
- High forward surge current capability
- Low forward voltage drop
- Surface Mount device


SMAF
MECHANICAL DATA

- Case: SMAF
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Weight: 0.027 grams (approximate)


MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)

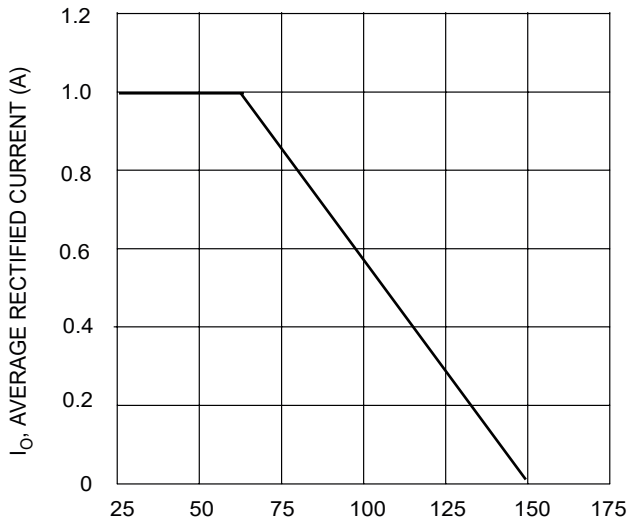
Parameter	Symbol	Value	Unit
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	600	V
DC Blocking Reverse Voltage	V _R	600	V
RMS Reverse Voltage	V _{R(RMS)}	420	V
Maximum Average Forward Rectified Current	I _F	1	A
Non-Repetitive Peak Forward Surge Current @t@=8.3ms	I _{FSM}	30	A
Thermal Resistance From Junction To Ambient	R _{θJA}	50	°C/W
Reverse Recovery Time(@I _F =0.5A, I _R =1.0A, I _{RR} =0.25A)	t _{rr}	250	nS
Junction Temperature	T _J	-55 ~+150	°C
Storage Temperature	T _{STG}	-55 ~+150	°C

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise specified)

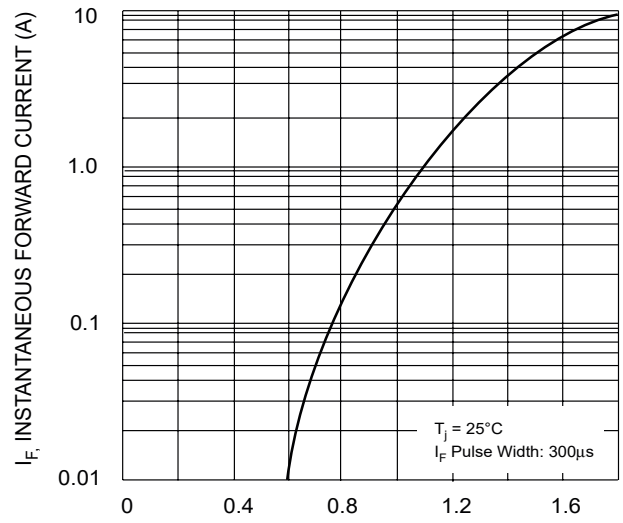
Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Forward voltage	V _F			1.3	V	I _F =1A
Reverse current	I _R			5	uA	V _R =600V
Diode capacitance	C _D		10		pF	V _R =4V _{DC} , f=1MHz

FAST RECOVERY RECTIFIER DIODE

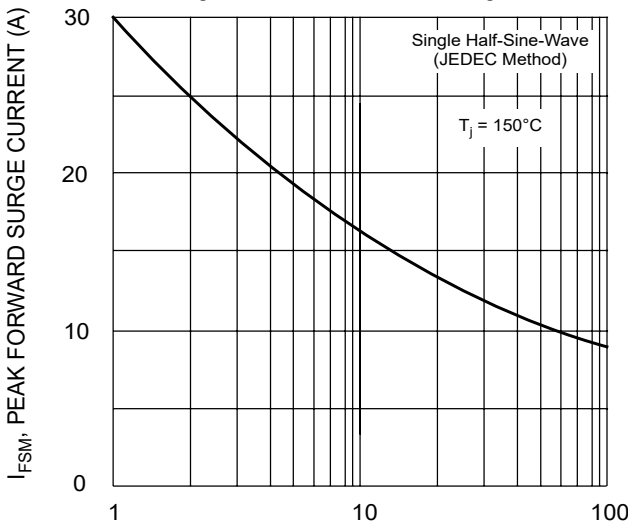
Typical Characteristics



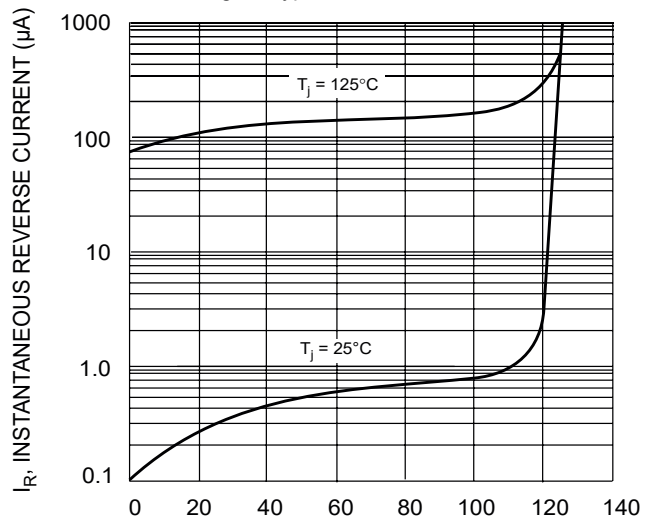
T_T , TERMINAL TEMPERATURE (°C)
Fig. 1 Forward Current Derating Curve



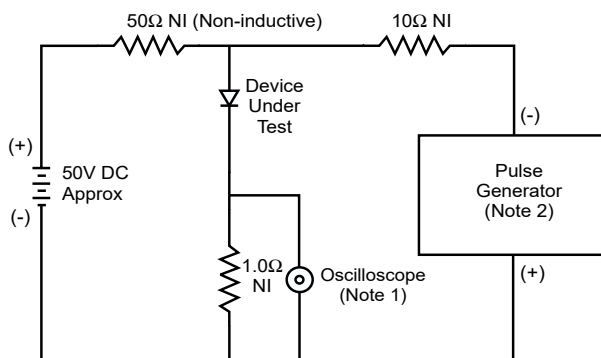
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
Fig. 2 Typical Forward Characteristics



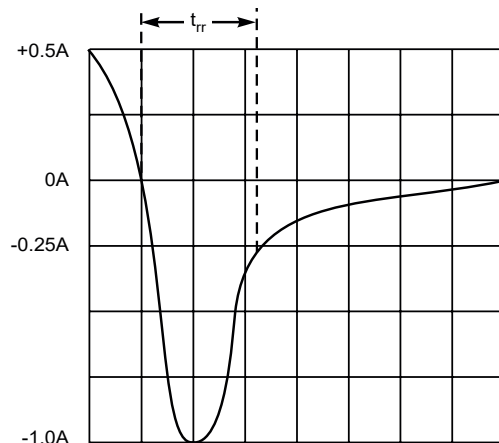
NUMBER OF CYCLES AT 60Hz
Fig. 3 Forward Surge Current Derating Curve



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
Fig. 4 Typical Reverse Characteristics

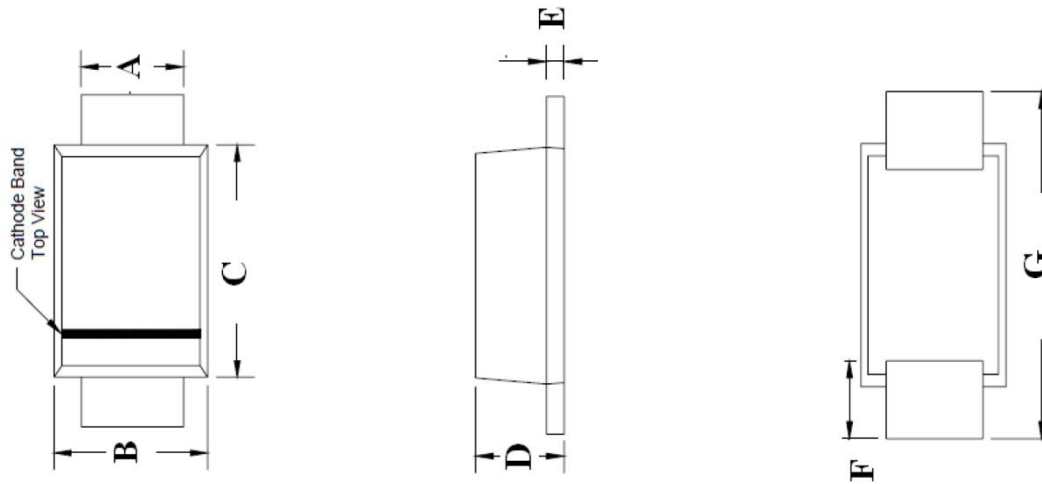


- Notes:
 1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
 2. Rise Time = 10ns max. Input Impedance = 50Ω.

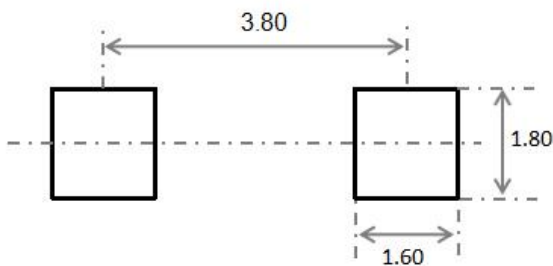


Set time base for 50/100 ns/cm

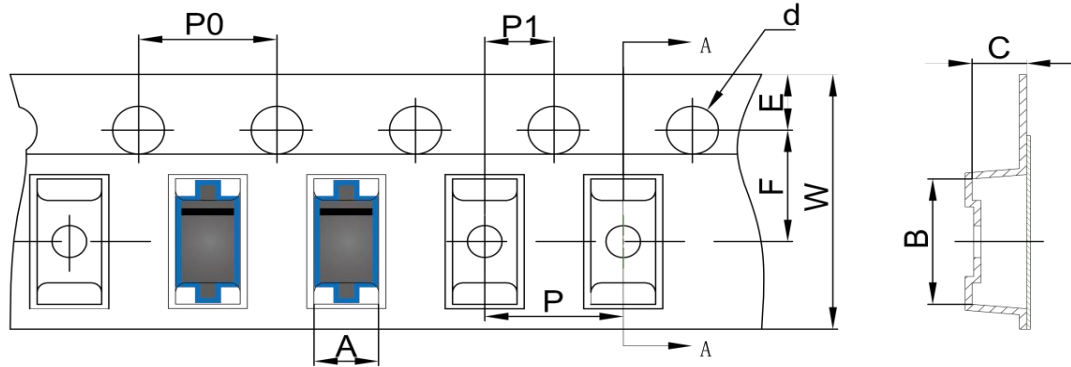
Fig. 5 Reverse Recovery Time Characteristic and Test Circuit

FAST RECOVERY RECTIFIER DIODE
SMAF Package Outline Dimensions


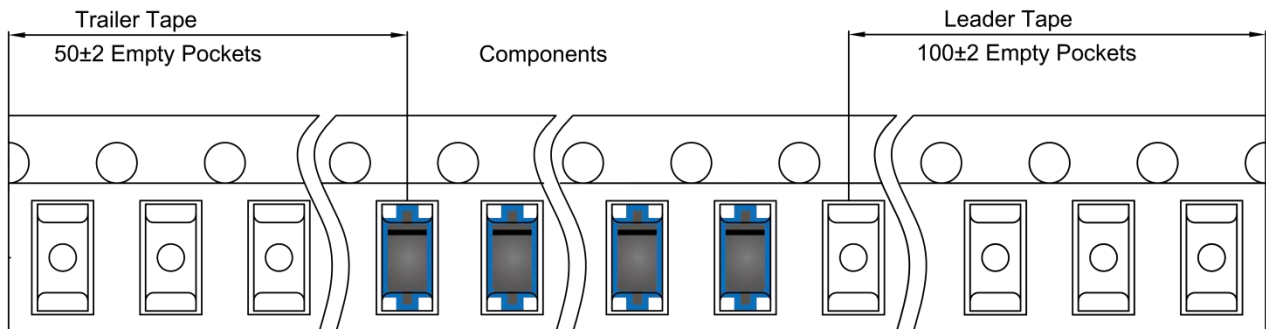
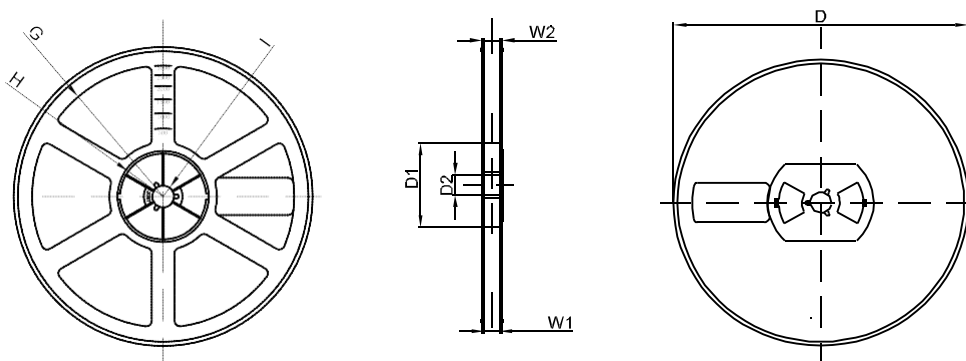
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.30	1.60	0.051	0.063
B	2.40	2.80	0.094	0.110
C	3.25	3.65	0.128	0.144
D	1.10	1.40	0.043	0.055
E	0.15	0.25	0.006	0.010
F	0.70	1.20	0.028	0.047
G	4.40	4.90	0.173	0.193

SMAF Suggested Pad Layout

Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

FAST RECOVERY RECTIFIER DIODE
SMAF Tape and Reel
SMAF Embossed Carrier Tape


DIMENSIONS ARE IN MILLIMETER										
TYPE	A	B	C	d	E	F	P0	P	P1	W
SMAF	2.79	5.35	1.48	Ø1.50	1.75	5.50	4.00	4.00	2.00	12.00
TOLERANCE	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1	±0.1

SMAF Tape Leader and Trailer

SMAF Reel


DIMENSIONS ARE IN MILLIMETER								
REEL OPTION	D	D1	D2	G	H	I	W1	W2
7" DIA	Ø178	54.40	13.00	R78	R25.60	R6.50	12.40	17.60
TOLERANCE	±2	±1	±1	±1	±1	±1	±1	±1