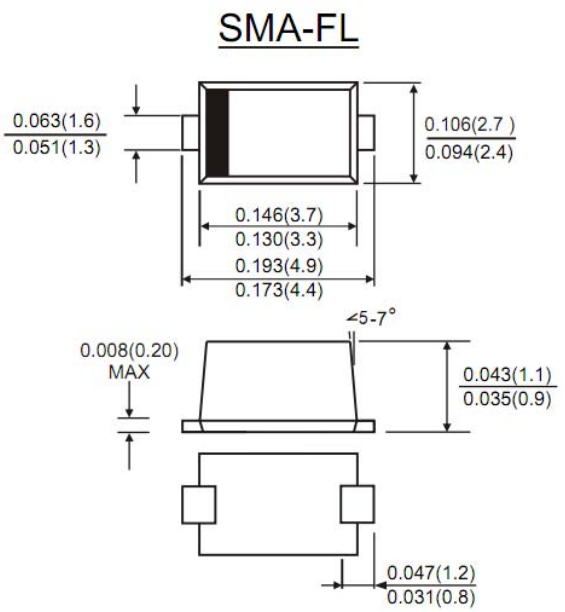
Schottky Barrier Rectifiers
Reverse Voltage 20 to100V Forward Current 3.0A

FEATURES

* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
* Low power loss,high efficiency
* For use in low voltage high frequency inverters, free wheeling,and polarity protection applications
* Guardring for over voltage protection
* High temperature soldering guaranteed: 260°C/10 seconds at terminals
* AEC-Q101 qualified



Mechanical Data

Case: JEDEC SMA-FL
molded plastic over glass die
Terminals: Plated leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.0327 g
Handling precautin:None

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25℃ ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, de- rate current by 20%.)

Parameter		Symbol	Part Number						Unit
			SM 320AF	SM 340AF	SM 360AF	SM 3100AF	SM 3150AF	SM 3200AF	
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	20	40	60	100	150	200	V
Working Peak Reverse Voltage		V_{RMS}	14	28	42	70	105	140	V
Maximum DC Blocking Voltage		V_R	20	40	60	100	150	200	V
Maximum Instantaneous Forward Voltage @ 3A		V_F	0.45	0.5	0.7	0.85	0.87	0.9	V
Maximum Average Forward Rectified Current, See Fig.1		I_O	3						A
Peak Forward Surge Current, 8.3ms single half sine- wave superimposed on rated load (JEDEC method)		I_{FSM}	80						A
Maximum Reverse Current [2]	T_C=25°C	I_R	0 5.			0 2.			mA
	T_C=100°C		10			5			
Typical Thermal Resistance		R_{JA}	120						℃/W
Typical Thermal Resistance		R_{JC}	90						℃/W
Diode Junction Capacitance (Typ.[1])		C_J	180		150	110	100	80	pF
Operating Temperature Range		T_J	- 50 ~ 125				- 50~ 150		℃
Storage Temperature Range		T_{STG}	- 50~ 150						℃

Note:
1. f=1MHz and applied 4V DC reverse voltage
2. Pulse Test：Pulse Width = 300us, Duty Cycle ≤ 2.0%.

Ratings and Characteristic Curves (Ta = 25°C unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

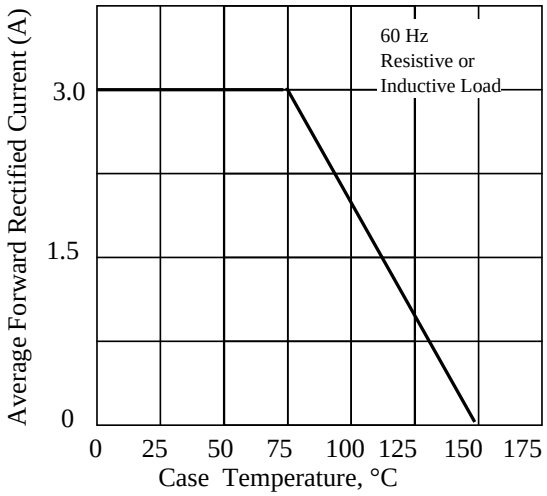


Fig. 2 – Maximum Non-repetitive Peak Forward Surge Current

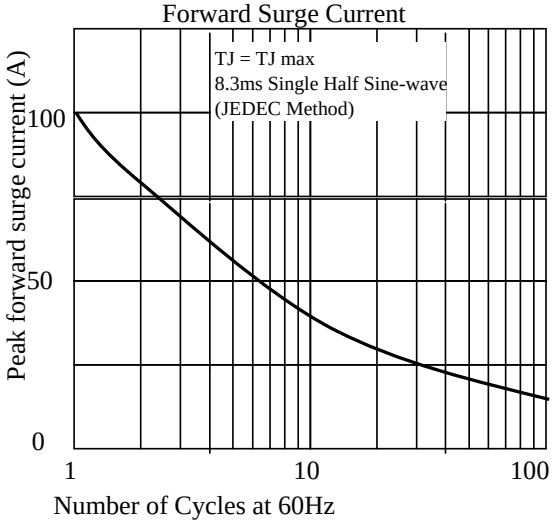


Fig 3. – Typical Instantaneous Forward Characteristics

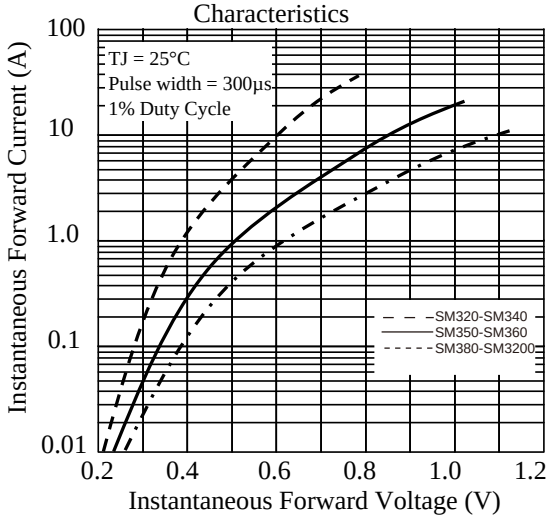


Fig 4. – Typical Reverse Characteristics

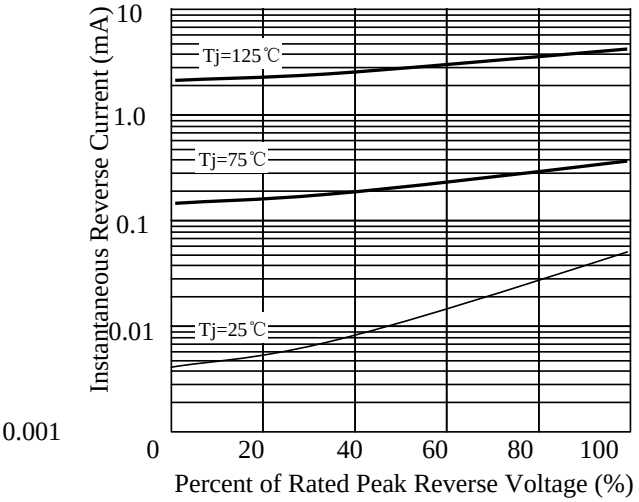


Fig 5. – typical transient thermal impedance

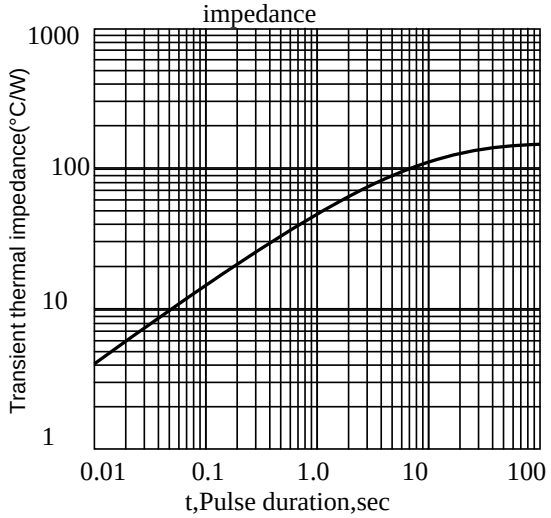


Fig 6. – Typical Junction Capacitance