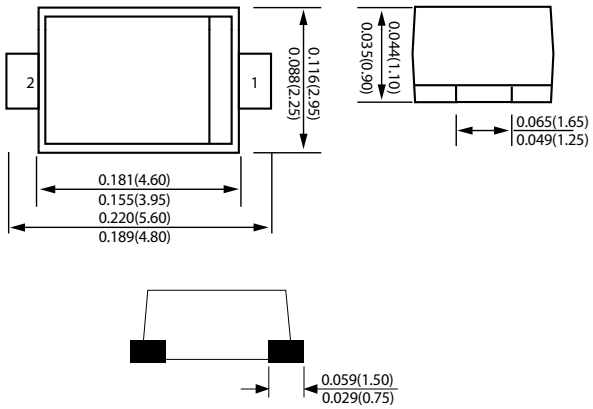
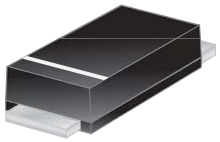
SM320AF thru SM3200AF

Schottky Barrier Rectifiers





Ordering Information	
Part Number	**Remark**
SM3xxAF	General
SM3xxAF-H	Halogen Free
SM3xxAF-Q	Automotive

PRIMARY CHARACTERISTICS	
I_F	3A
V_{RRM}	20~200V
I_{FSM}	80A
V_F	0.50, 0.70, 0.85, 0.87, 0.90V
T_J max	125°C , 150°C

DO-221AC(SMAF)

Dimensions in inches and (millimeters)

Features

- Low profile package
- Ideal for automated placement
- Guard Ring for over voltage protection
- Low forward voltage drop
- Component in accordance to RoHS 2002/95/EC
- AEC-Q101 qualified

Mechanical Date

- Case: DO-221AC (SMAF)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals: Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.032 grams (approximate)

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

PARAMETER	SYMBOL	SM 320AF	SM 330AF	SM 340AF	SM 350AF	SM 360AF	SM 380AF	SM3 100AF	SM3 150AF	SM3 200AF	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	V
Maximum average forward rectified current	I_F	3.0									A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	80.0									A
Maximum Instantaneous Forward Voltage IF=3A @ 25°C	V_F	0.50			0.70		0.85		0.87	0.90	V
Maximum DC Reverse Current @ Tc=25°C at Rated DC Blocking Voltage @ Tc=100°C	I_R	0.5 10					0.2 5.0				mA
Typical Junction Capacitance(NOTE1)	C_j	180			150		110		100	80	pF
Typical Thermal Resistance(NOTE2)	$R_{\theta Ja}$ $R_{\theta JC}$	120 90									°C/W
Operating Temperature Range	T_J	-55 to +125					-55 to +150				°C
Storage Temperature Range	T_{STG}	-55 to +150									°C

NOTES:

1.Measured at 1.0MHZ and applied reverse voltage of 4.0V DC

2.Device mounted on FR-4 substrate, 1"*1", 2oz, single-sided, PC boards with 0.1"*0.15" copper pad.

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FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

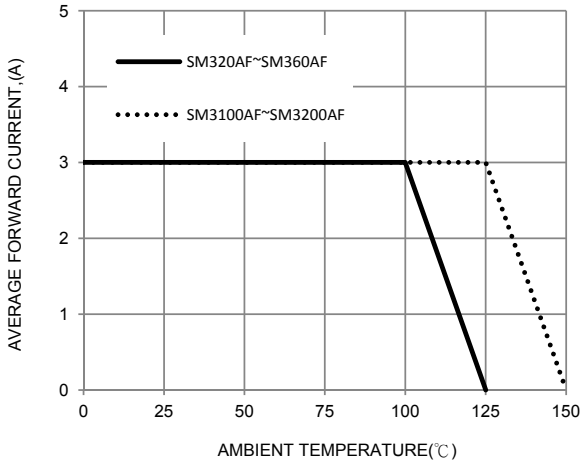

FIG. 2-TYPICAL FORWARD CHARACTERISTICS

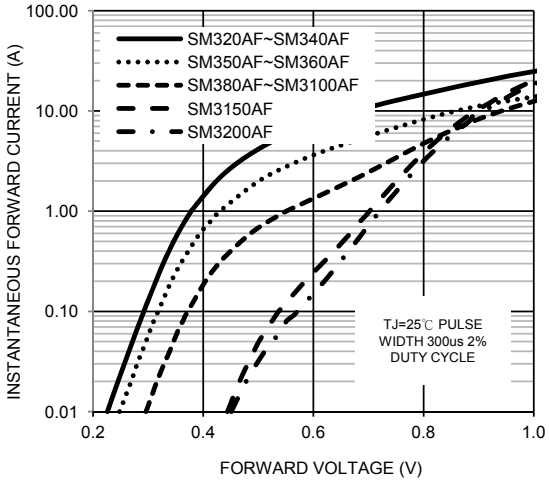

FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

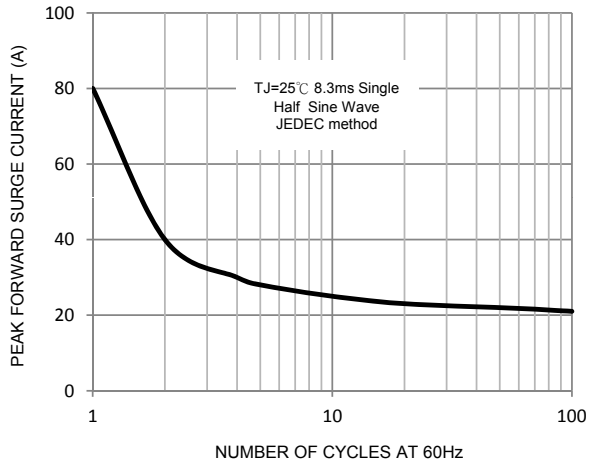

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

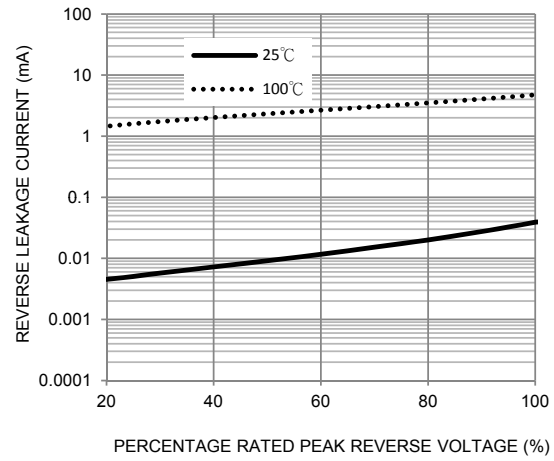

FIG. 5-TYPICAL JUNCTION CAPACITANCE