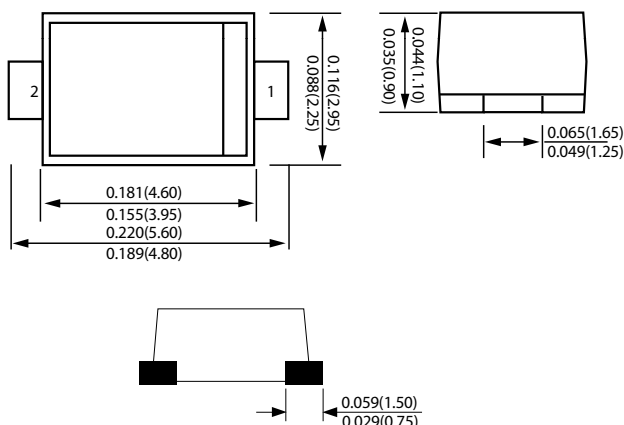
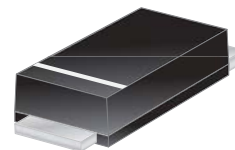




DO-221AC(SMAF)

Dimensions in inches and (millimeters)



Ordering Information	
Part Number	Remark
SM2xxAF	General
SM2xxAF-H	Halogen Free
SM2xxAF-Q	Automotive

PRIMARY CHARACTERISTICS	
I_F	2A
V_{RRM}	20~200V
I_{FSM}	50A
V_F	0.50 , 0.70 , 0.85 , 0.87 , 0.90V
$T_J \text{ max}$	125°C , 150°C

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 Data

- 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	SM2 20AF	SM2 30AF	SM2 40AF	SM2 50AF	SM2 60AF	SM2 80AF	SM2 100AF	SM2 150AF	SM2 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	2.0									A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	50.0									A
Maximum Instantaneous Forward Voltage IF=2A @ 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 15					0.2 5.0				mA
Typical Junction Capacitance(NOTE1)	C _j	150			120		100				pF
Typical Thermal Resistance(NOTE2)	R _{θJa} R _{θJc}	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.

FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

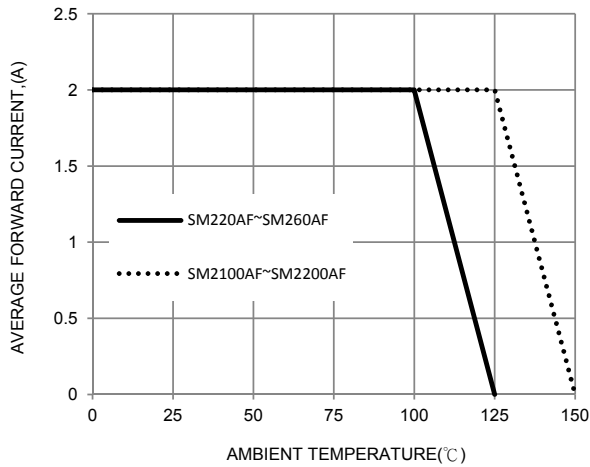


FIG. 2-TYPICAL FORWARD CHARACTERISTICS

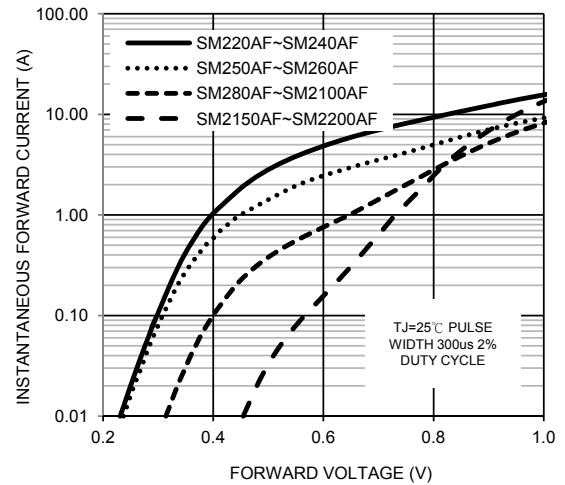


FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

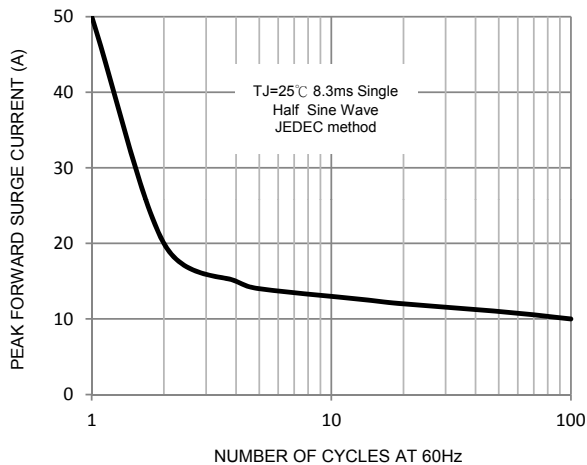


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

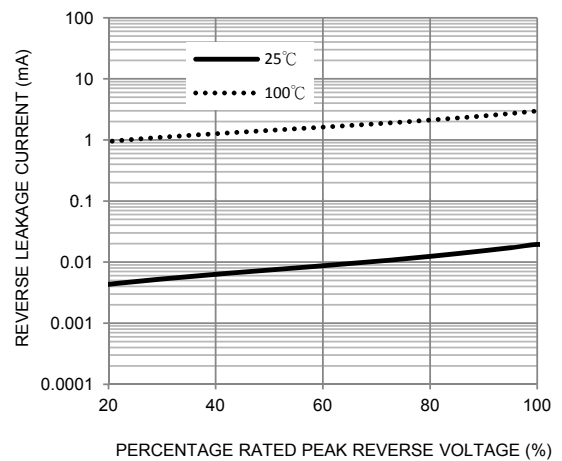


FIG. 5-TYPICAL JUNCTION CAPACITANCE

