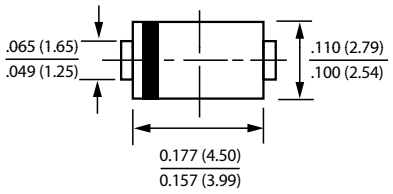
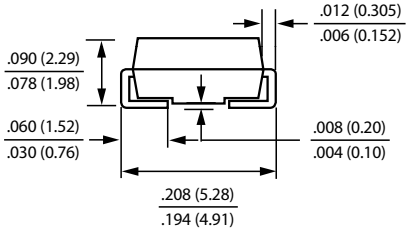
SM320A thru SM3200A

Schottky Barrier Rectifiers





DO-214AC(SMA)

Dimensions in inches and (millimeters)

Ordering Information	
Part Number	**Remark**
SM3xxA	General
SM3xxA-H	Halogen Free
SM3xxA-Q	Automotive

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

- Case: DO-214AC (SMA)
- 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: 0.062 grams (approximate)

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

PARAMETER	SYMBOL	SM 320A	SM 330A	SM 340A	SM 345A	SM 350A	SM 360A	SM 380A	SM 3100A	SM 3150A	SM 3200A	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	45	50	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	21	28	31.5	35	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	30	40	45	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)	$R_{\theta Ja}$ $R_{\theta JC}$	100 80										°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.

SM320A thru SM3200A

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FIG. 1-TYPICAL FORWARD CURRENT DERATING CURVE

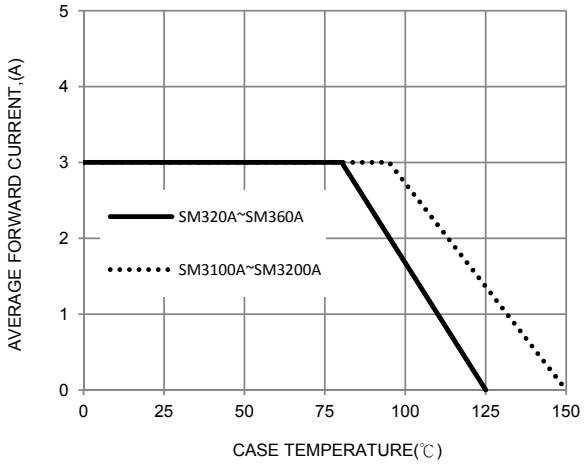

FIG. 2-TYPICAL FORWARD CHARACTERISTICS

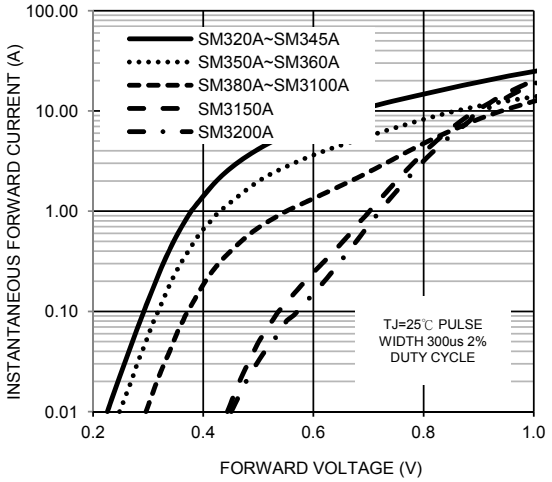

FIG. 3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

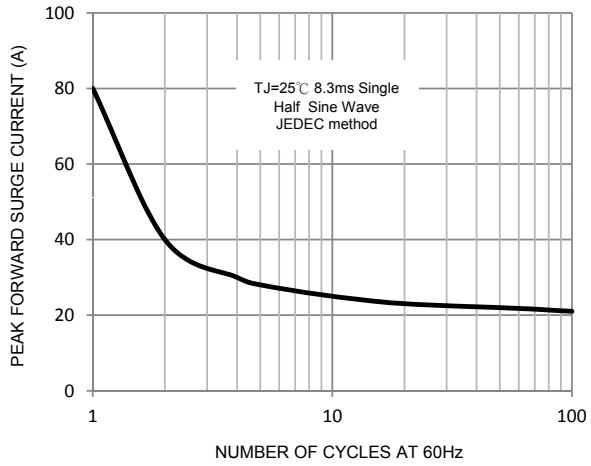

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

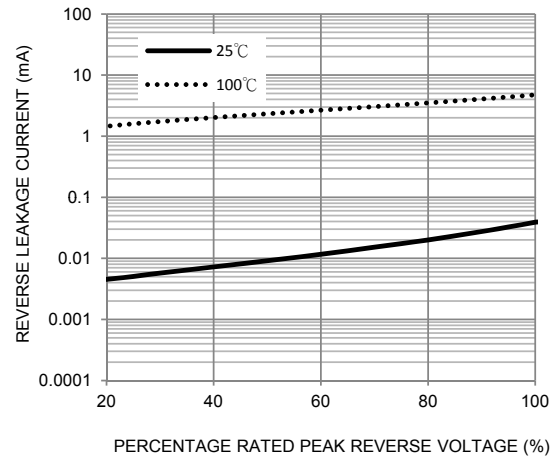

FIG. 5-TYPICAL JUNCTION CAPACITANCE