



DO-214AC(SMA)

Primary Characteristics		
I_F	2	A
V_{RRM}	20~200	V
I_{FSM}	50	A
V_F	0.50 , 0.70 , 0.85 , 0.87 , 0.90	V
T_J max	125,150	°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

Mechanical Data
• Cases: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)

Ordering Information			
Part No.	Remark	Package	Packing
SM2x0A	General	SMA	5000 / Tape & Reel
SM2x0A-H	Halogen Free		
SM2x0A-Q	AEC-Q101 qualified		

Maximum Ratings (TA=25°C unless otherwise noted)											
PARAMETER	SYMBOL	SM 220A	SM 230A	SM 240A	SM 250A	SM 260A	SM 280A	SM 2100A	SM 2150A	SM 2200A	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 @ TA=25°C at Rated DC Blocking Voltage @ TA=100°C	I _R	0.5 15					0.2 5.0				mA
Typical Junction Capacitance(NOTE1)	C _j	125			70				55	40	pF
Critical rate of rise of revrse voltage (rated VR,Tj=25°C)	dV/dt	10,000									V/us
Typical Thermal Resistance	R _{θJC}	40									°C/W
Operating Temperature Range	T _J	-55 to +125					-55 to +150				°C
Storage Temperature Range	T _{STG}	-55 to +150									°C
Marking Code		SM 220A	SM 230A	SM 240A	SM 250A	SM 260A	SM 280A	SM 2100A	SM 2150A	SM 2200A	

NOTES:

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

Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

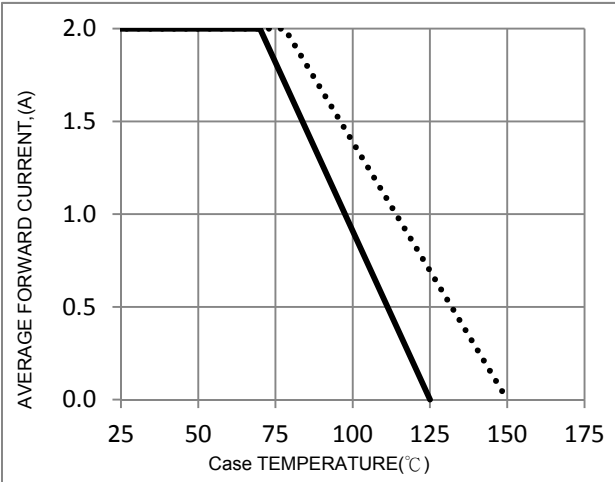


FIG. 2-Typical Forward Characteristics

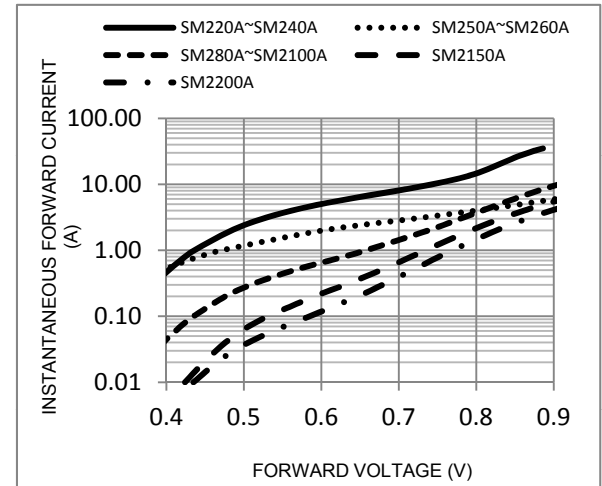


FIG. 3-Maximum Non-Repetitive Forward Surge Current

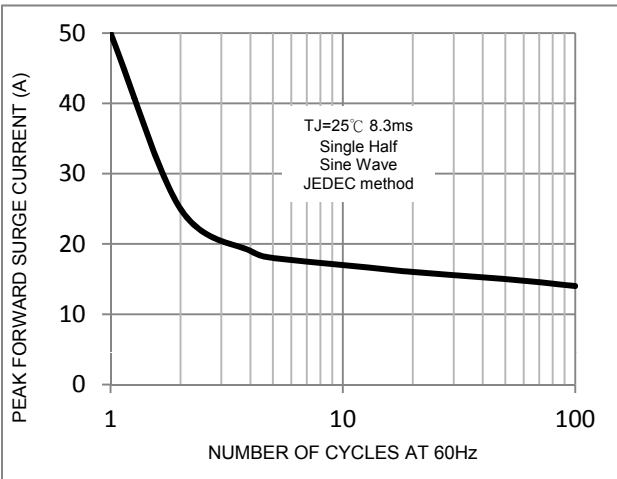


FIG. 4-Typical Reverse Characteristics

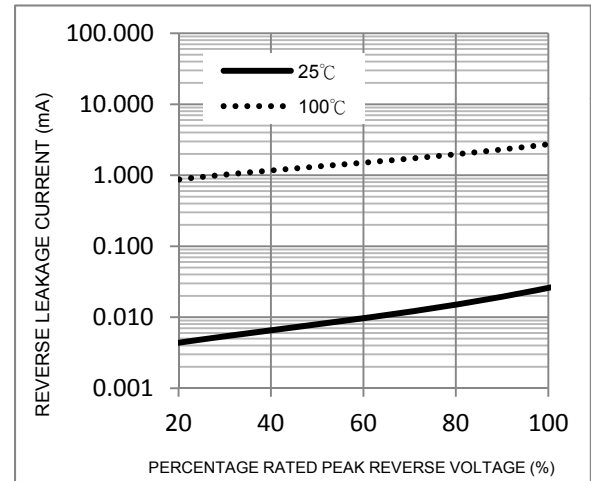
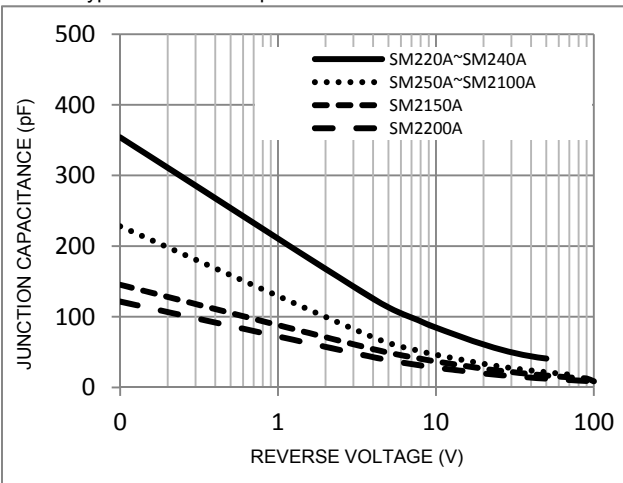
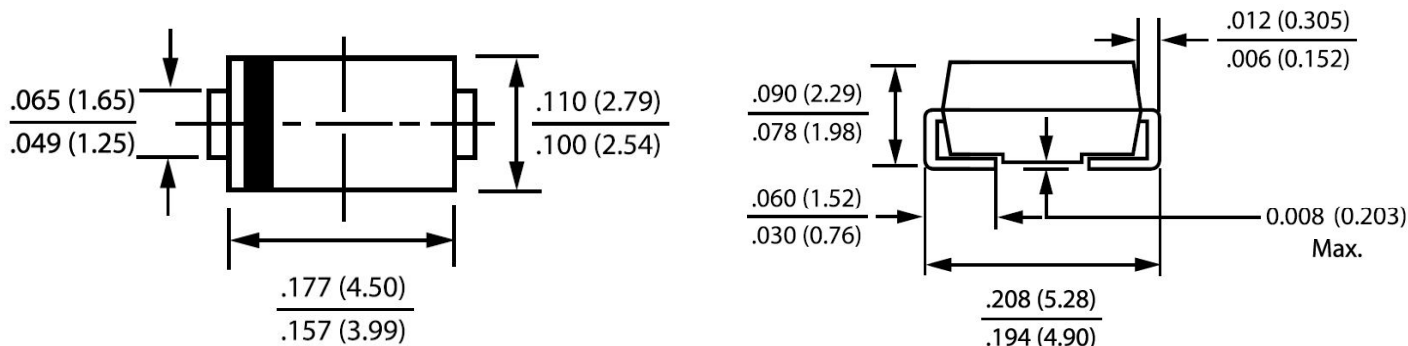


FIG. 5-Typical Junction Capacitance



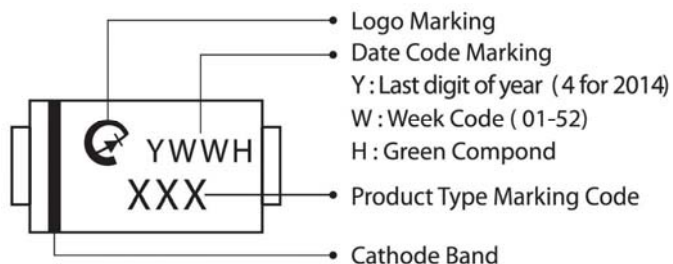
Package Outline Dimensions



DO-214AC(SMA)

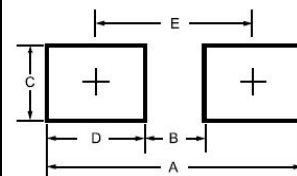
Dimensions in inches and (millimeters)

Marking Information



Suggested Pad Layout

Dimension	Outline	SMA (DO-214AC)
A		6.50
B		1.50
C		1.70
D		2.50
E		4.00



Tap & Reel Specification

ITEM	SYMBOL	SMA(mm) DO-214AC
Carrier width	A	2.9(max)
Carrier length	B	5.9(max)
Carrier depth	C	2.66(max)
Sprocket hole	d	1.50±0.1
Reel outside diameter	D	330±2.0
Feed hole diameter	D0	13.5±1
Reel inner diameter	D1	50 (min.)
Sprocket hole position	E	1.75±0.1
Punch hole position	F	5.5±0.05
Sprocket hole pitch	P	4.0±0.1
Sprocket hole pitch	P0	4.0±0.1
Embossment center	P1	2.0±0.05
Overall tape thickness	T	0.6 (max)
Tape width	W	12.0±0.3
Reel width	W2	18.4 (max)
Reel width	W1	14.4 (max)

