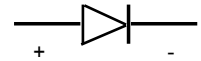
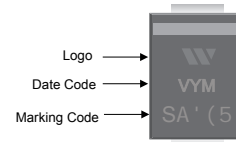




PRIMARY CHARACTERISTICS	
$V_{RRM}$	40V,60V,100V,150V,200V
$I_O$	3.0A
$V_F$	0.45V,0.55V,0.75V,0.82V,0.85V
$T_{J,Max}$	150°C,175°C

### SMA(DO-214AC) PACKAGE

- Body Marking Example  
Marking :GA' (5r GA' &&5  
Ex :SM' (5



V:Product Lines  
Y:A.D. late code, EX : 4-2014,5-2015  
M:Month, EX : 1-1,2-2,---10-O,11-N,12-D

### FEATURES

- Low Profile surface mount applications in order to optimize board space
- Low power loss, high efficiency
- High current capability, low forward voltage drop
- High surge capability
- Guard ring for overvoltage protection
- Ultra high-speed switching
- Silicon epitaxial planar chip, metal silicon junction
- Moisture Sensitivity Level 1

### MECHANICAL DATA

- Case : Molded plastic, SMA(DO-214AC)
- Polarity : Indicated by cathode band
- Terminals :Plated terminals, solderable per MIL-STD-750,Method 2026
- Epoxy : UL94-V0 rated flame retardant

## Maximum Ratings and Electrical Characteristics

Ratings at  $T_a=25^\circ\text{C}$  unless otherwise noted.  
Single phase, half wave, 60Hz, resistive or inductive loaded.  
For capacitive load, derate current by 20% .

Parameter	Symbol	SM34A	SM36A	SM310A	SM315A	SM320A	Units
Marking Code		SM34A	SM36A	SM310A	SM315A	SM320A	
Max. Repetitive peak reverse voltage	$V_{RRM}$	40	60	100	150	200	V
Max. DC blocking voltage	$V_{DC}$	40	60	100	150	200	V
Max. RMS voltage	$V_{RMS}$	28	42	70	105	140	V
Max. Instantaneous forward voltage @3.0A, $T_A=25^\circ\text{C}$	$V_F$	0.45	0.55	0.75	0.82	0.85	V
Operating Temperature	$T_J$	-50 to +150			-50 to +175		$^\circ\text{C}$

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Units
Forward rectified current	see Fig.1	$I_O$			3.0	A
Forward surge current	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$			125	A
Reverse Current	$V_R = V_{RRM}$ $T_A=25^\circ\text{C}$	$I_R$			0.5	mA
	$V_R = V_{RRM}$ $T_A=100^\circ\text{C}$	$I_R$			20	mA
Thermal Resistance	Junction to ambient	$R_{\theta JA}$		55		$^\circ\text{C/W}$
Diode Junction capacitance	$f=1\text{MHz}$ and applied 4V DC reverse Voltage	$C_J$		250		pF
Storage temperature		$T_{STG}$	-50		+175	$^\circ\text{C}$

## RATING AND CHARACTERISTIC CURVES (SM34A~SM320A)

Fig.1 - Typical Forward Current Derating Curve

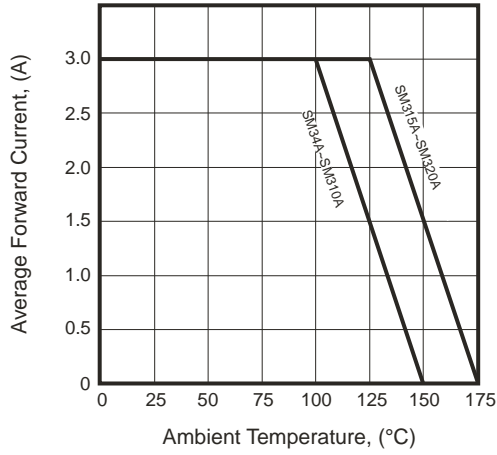


Fig.2 - Typical Forward Characteristics

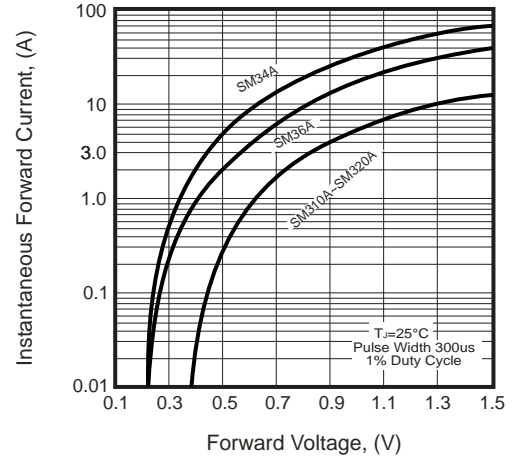


Fig.3 - Maximum Non-repetitive Forward Surge Current

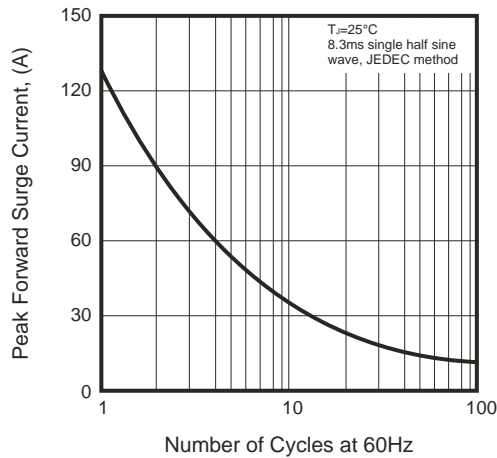


Fig.4 - Typical Junction Capacitance

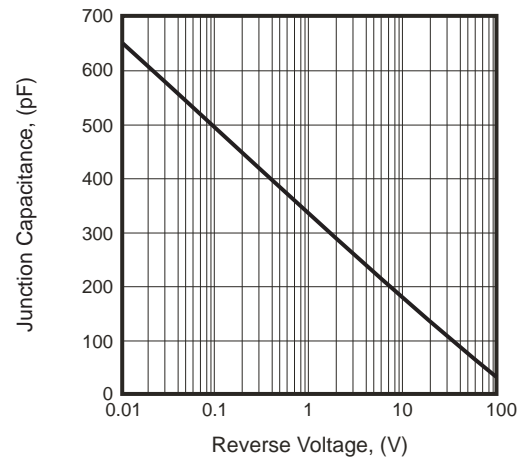
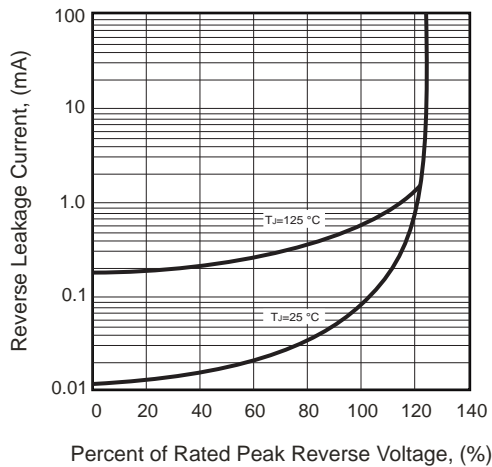
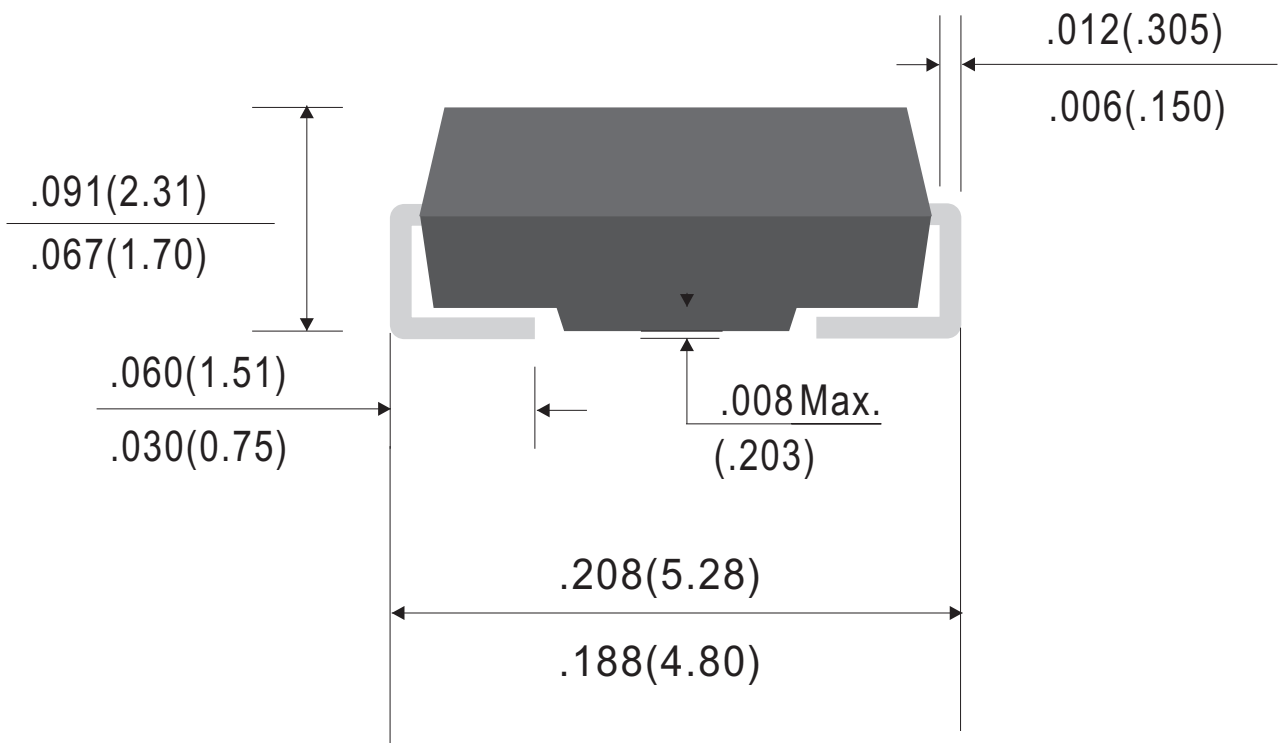
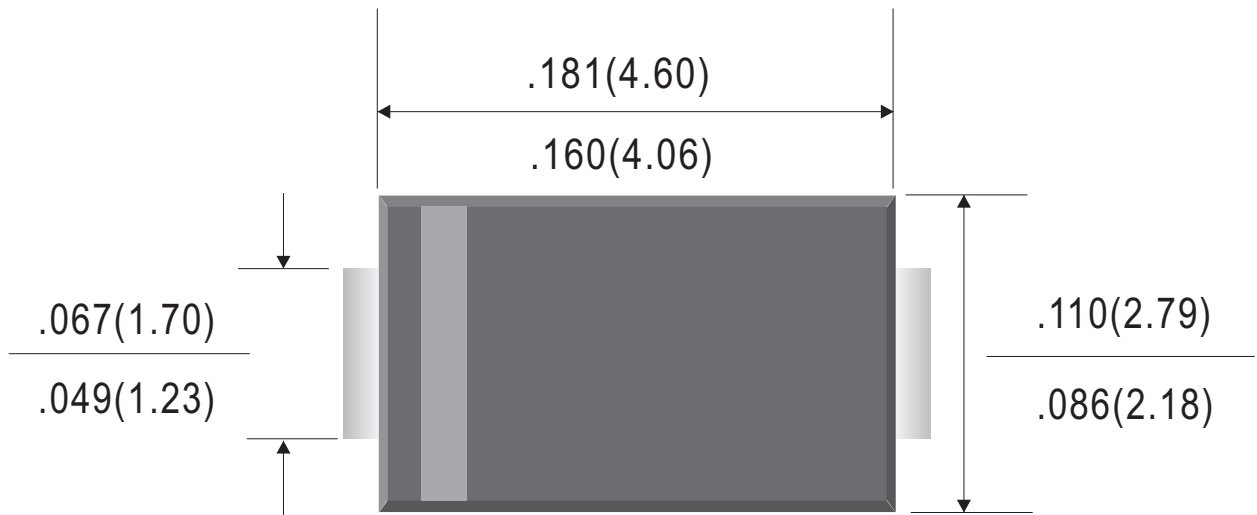


Fig.5 - Typical Reverse Characteristics



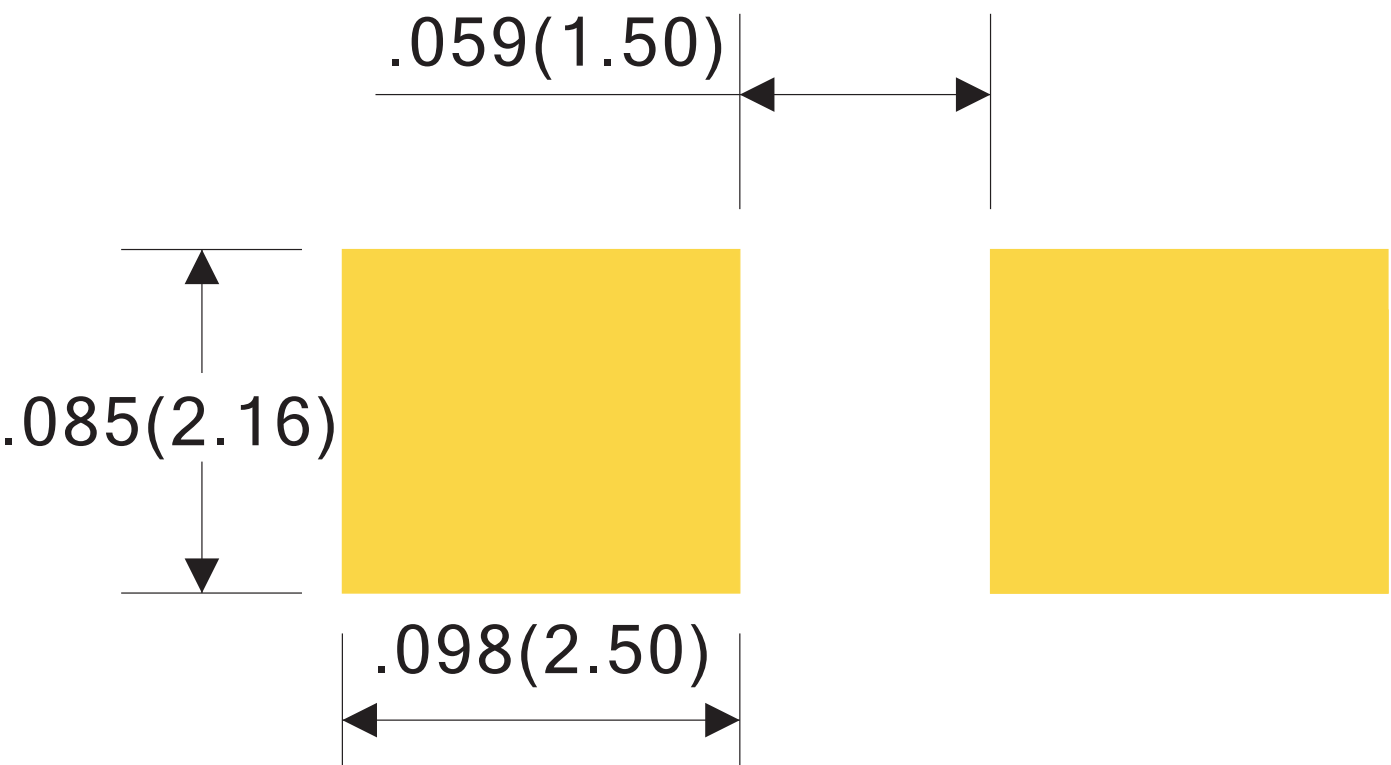
# Outline Drawing

# SMA(DO-214AC)



Dimensions in inches and (millimeters)

Rev.C

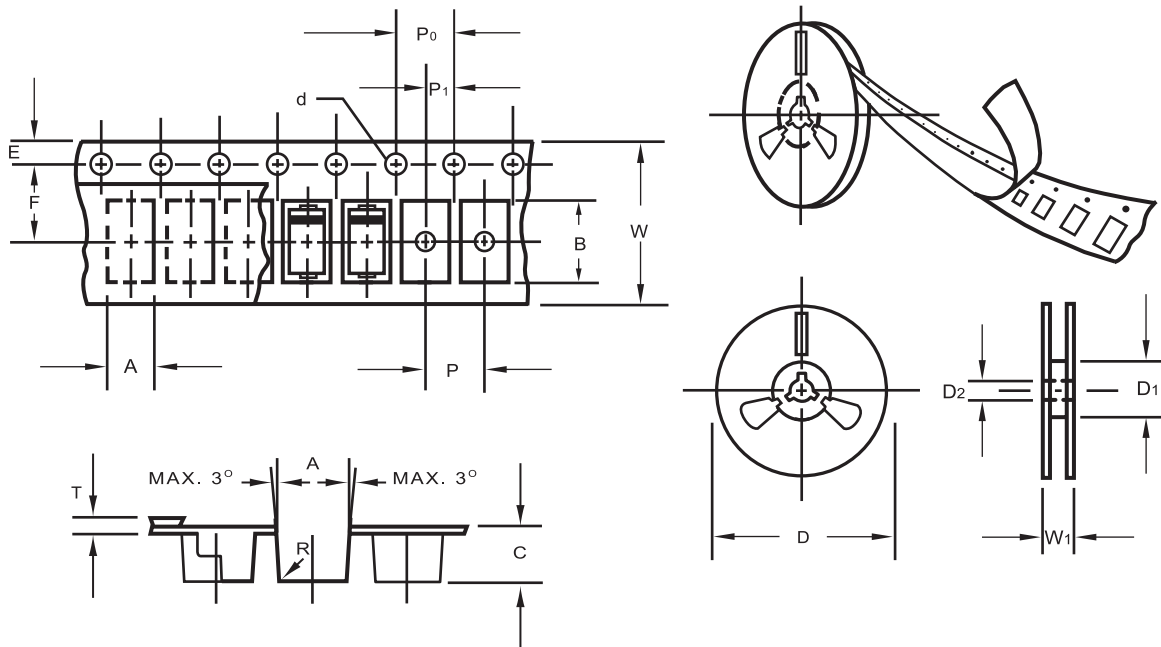
Suggested Soldering Pad Layout	SMA
 <p style="text-align: center;">Dimensions in inches and (millimeters)</p>	
Rev.A	

## Reel Taping Sepecification - Surface Mount Device

### Reel Packing

PACKAGE	PER REEL EA	REEL DIA (m/m)	BOX SIZE (m/m)	PER BOX EA	CARTION (m/m)	PER CARTION EA	GROSS WEIGHT (Kg)
SMA	5,000	330	340*340*40	10,000	355*360*350	80,000	15.0
SMB	3,000	330	340*340*40	6,000	355*360*350	48,000	13.6
SMC	3,000	330	340*340*40	6,000	355*360*350	48,000	18.5

Note. Packing tape color : It's contains colorless & Black.



ITEM	SYMBOL	DO214AC (SMA) mm(inch)	DO214AA (SMB) mm(inch)	DO214AB (SMC) mm(inch)
Carrier width	A	3.0 ± 0.1 (.122 ± .004)	3.65 ± 0.1 (.148 ± .004)	6.0 ± 0.1 (.240 ± .004)
Carrier length	B	5.4 ± 0.1 (.213 ± .004)	5.69 ± 0.1 (.224 ± .004)	8.30 ± 0.1 (.330 ± .004)
Carrier depth	C	2.4 ± 0.1 (.098 ± .004)	2.67 ± 0.1 (.105 ± .004)	2.5 ± 0.1 (.100 ± .004)
Sprocket hole	d	1.5 ± 0.1 (.059 ± .004)	1.5 ± 0.1 (.059 ± .004)	1.5 ± 0.1 (.059 ± .004)
Reel outside diameter	D	178 ± 2.0 (7.0 ± 0.79)	178 ± 2.0 (7.0 ± 0.79)	178 ± 2.0 (7.0 ± 0.79)
Reel inner diameter	D1	8.0 ± 0.2 (3.15 ± .008)	8.0 ± 0.2 (3.15 ± .008)	8.0 ± 0.2 (3.15 ± .008)
Feed hole diameter	D2	13 ± 0.5 (.152 ± .020)	13 ± 0.5 (.152 ± .020)	13 ± 0.5 (.152 ± .020)
Stroket hole position	E	1.5 ± 0.1 (.059 ± .004)	1.5 ± 0.1 (.059 ± .004)	1.5 ± 0.1 (.059 ± .004)
Punch hole position	F	5.65 ± 0.05 (.222 ± .002)	5.65 ± 0.05 (.222 ± .002)	7.65 ± 0.05 (.301 ± .002)
Punch hole pitch	P	4.0 ± 0.1 (.157 ± .004)	8.0 ± 0.1 (.315 ± .004)	8.0 ± 0.1 (.315 ± .004)
Sprocket hole pitch	P0	4.0 ± 0.1 (.157 ± .004)	4.0 ± 0.1 (.157 ± .004)	4.0 ± 0.1 (.157 ± .004)
Embossment center	P1	2.0 ± 0.1 (.79 ± .004)	2.0 ± 0.1 (.79 ± .004)	4.0 ± 0.1 (.157 ± .004)
Totall tape thickness	T	0.30 ± .05 (.012 ± .002)	0.6 MAX.	0.6 MAX.
Tape width	W	12.0 ± 0.2 (.472 ± .008)	12.0 ± 0.2 (.472 ± .008)	16.0 ± 0.2 (.630 ± .008)
Reel with	W1	16.8 ± 2.0 (.661 ± .079)	16.8 ± 2.0 (.661 ± .079)	24.0 ± 2.0 (.945 ± .079)

NOTE: Devices are packed in accordance with EIA standard RS-481-A and specification given above.