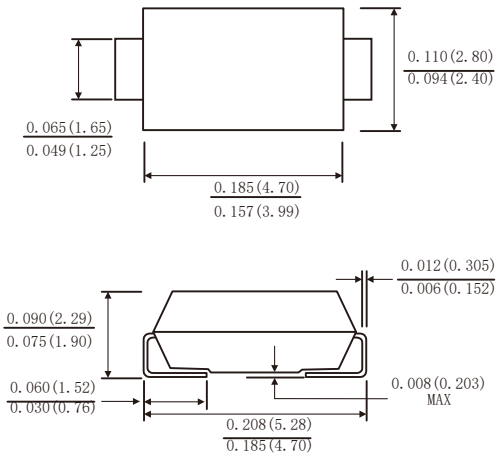
SCHOTTKY BARRIER RECTIFIER

Features :

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Low profile package
- built-in strain relief ,ideal for automated placement
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2011/65/EU

SMA(DO-214AC)

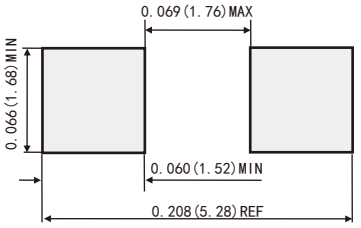


Dimensions in inches and (millimeters)

Mechanical Data :

- Case: JEDEC SMA(DO-214AC) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750,method 2026
- Polarity: color band denotes cathode end

Suggested PAD Layout



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25°C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load. For capacitive load,derate by 20%.)

	Symbols	SK32A	SK33A	SK34A	SK36A	SK310A	SK315A	SK320A	Units
Marking Code	-	SS32 SK32	SS33 SK33	SS34 SK34	SS36 SK36	SS310 SK310	SS315 SK315	SS320 SK320	-
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	60	100	150	200	Volts
Maximum RMS voltage	V_{RMS}	14	21	28	42	70	105	140	Volts
Maximum DC blocking voltage	V_{DC}	20	30	40	60	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length (See Fig.1)	$I_{(AV)}$	3.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	100.0							Amps
Maximum instantaneous forward voltage at 3.0 A(Note 1)	V_F	0.55			0.70	0.85	0.90	0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1) T_A=25°C	I_R	100				20			μA
T_A=100°C		5				-			mA
T_A=125°C		-				3			
Typical junction capacitance(Note 3)	C_J	250				160			pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	88.0 28.0							°C/W
Operating junction temperature range	T_J	-55 to+150							°C
Storage temperature range	T_{STG}	-55 to+150							°C

Notes: 1.Pulse test: 300 μs pulse width,

2. P.C.B. mounted 0.55 X 0.55"(14 X 14mm)c
3. Measured at 1MHz and reverse voltage of 4.0volts

RATINGS AND CHARACTERISTIC CURVES SK32A THRU SK320A

FIG.1-FORWARD CURRENT DERATING CURVE

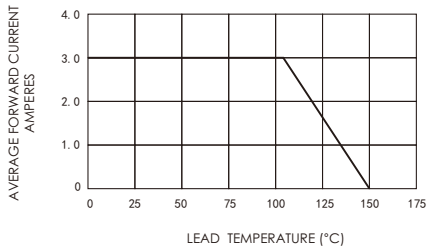


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

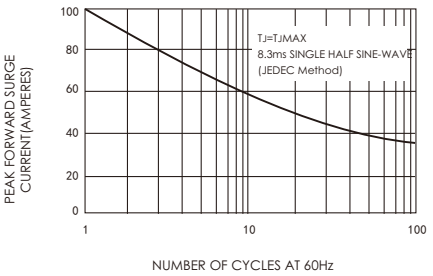


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

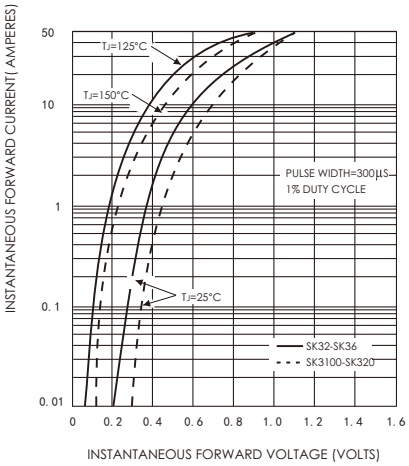


FIG.4-TYPICAL REVERSE CHARACTERISTICS

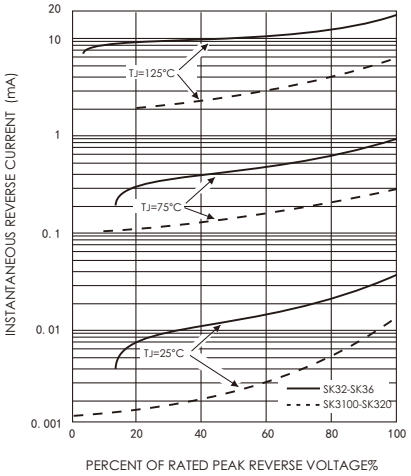
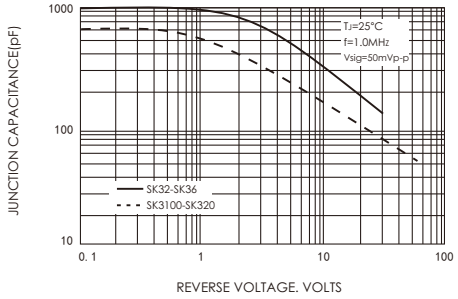
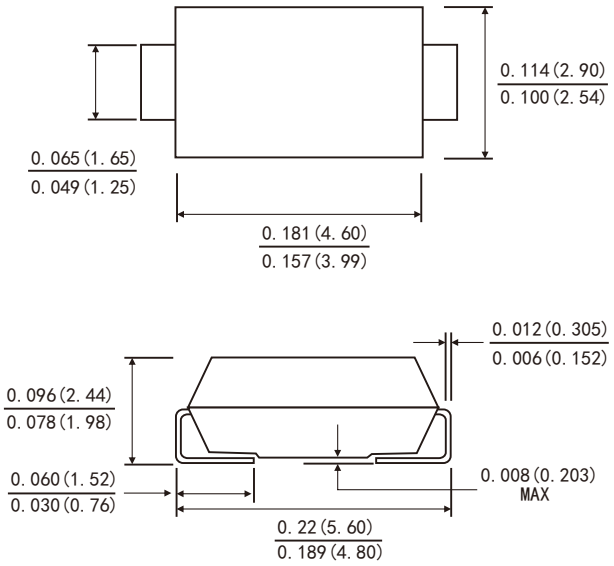


FIG.5-TYPICAL JUNCTION CAPACITANCE

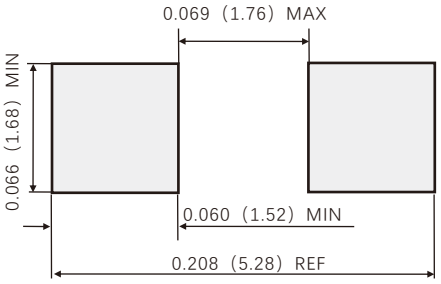


PACKAGE OUTLINE DIMENSIONS

SMA(DO-214AC)



Suggested PAD Layout



Dimensions in inches and (millimeters)

Reel Taping Specifications For Surface Mount Devices-SMA

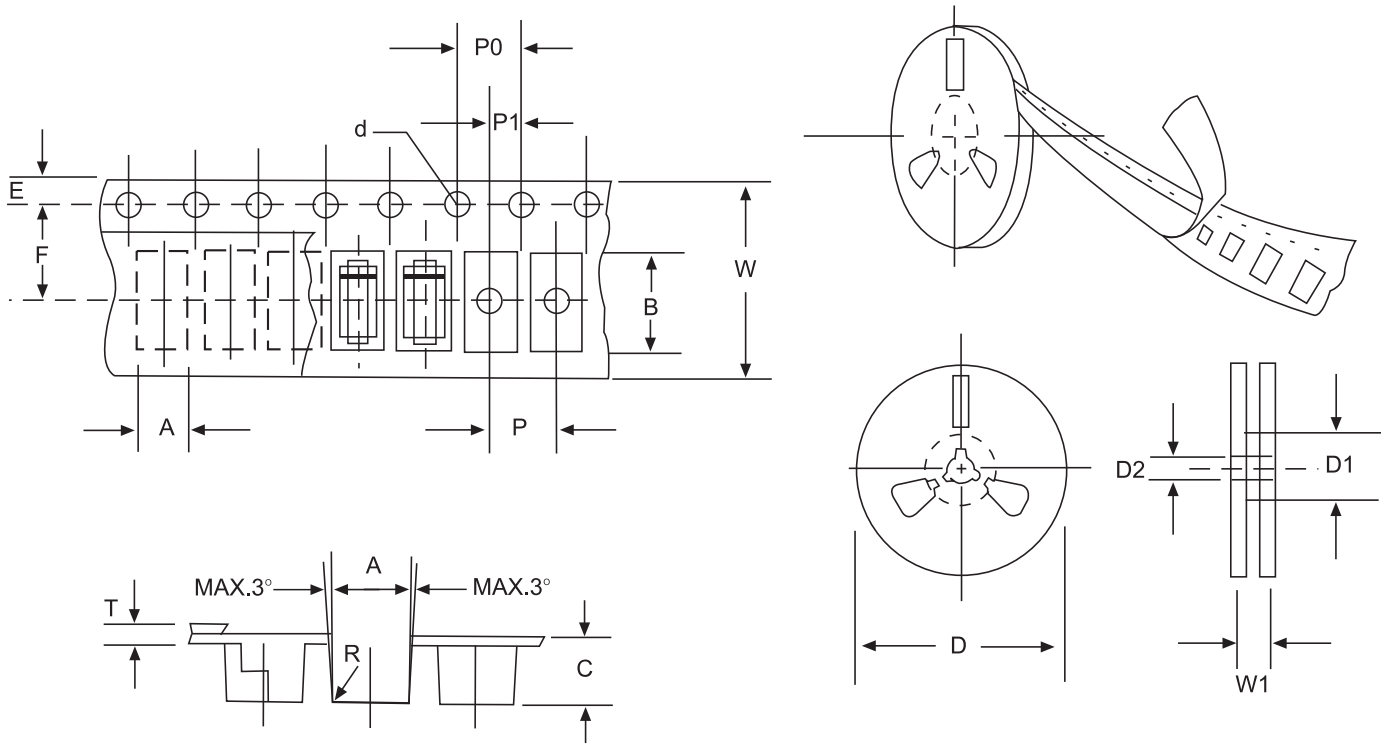


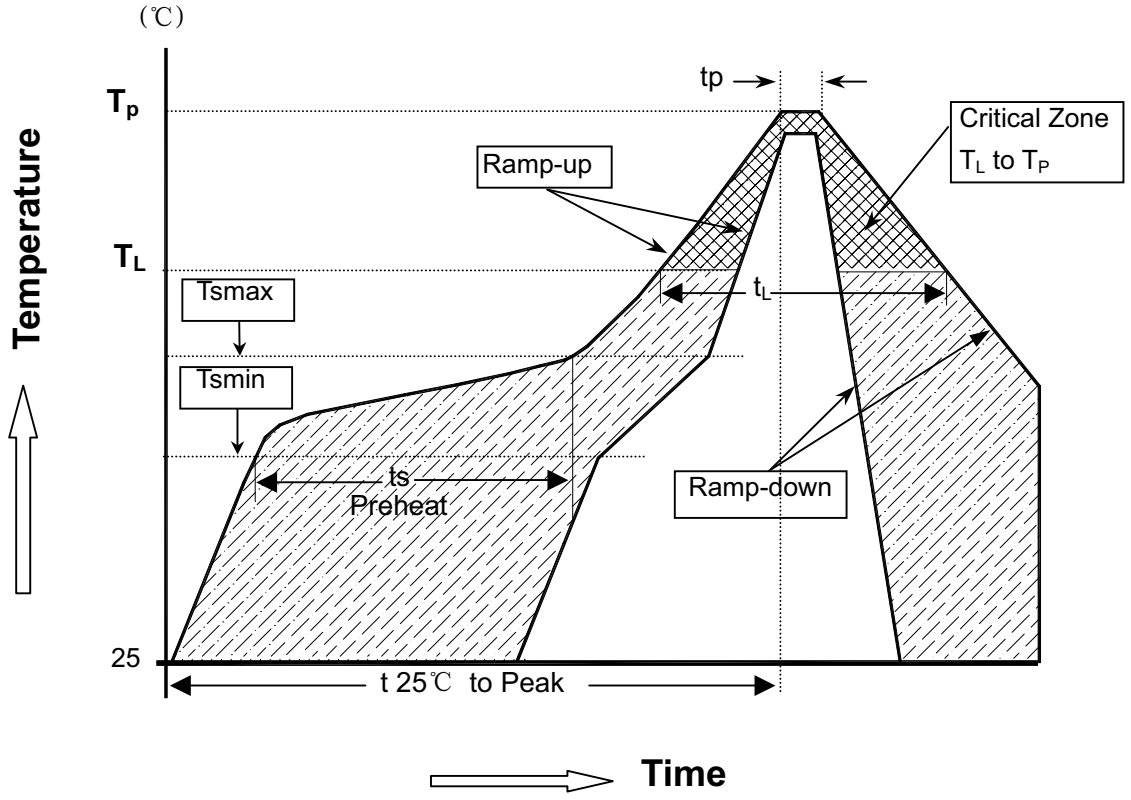
FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

ITEM	SYMBOL	SMA mm(inch)
Carrier width	A	2.79±0.1(0.110±0.004)
Carrier length	B	5.33±0.1(0.210±0.004)
Carrier depth	C	2.36±0.1(0.093±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.002)
Reel outside diameter	D	279±2.0 (11± 0.079)
Reel inner diameter	D1	75±1.0 (2.95 ±0.039)
Feed hole diameter	D2	13±0.5(0.512±0.020)
Stroket hole position	E	1.75±0.1(0.069±0.004)
Punch hole position	F	5.5±0.05(0.217±0.002)
Punch hole pitch	P	4.0±0.1(0.157±0.004)
Sprocket hole pitch	P0	4.0±0.1(0.157±0.004)
Embossment center	P1	2.0±0.1(0.079±0.004)
Totall tape thickness	T	0.28±0.02(0.011±0.0008)
Tape width	W	12.0±0.2(0.472±0.008)
Reel width	W1	16.8±2.0(0.661±0.079)

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

1.Recommended of reflow soldering condition.

Profile Feature	Pb-Free Assembly
Average ramp-up rate (Ts_{max} to T_P)	3℃/second max.
Preheat Temperature Min (Tsmin) Temperature Max (Tsmax) Time (min to max) (ts)	 150℃ 200℃ 60-180 seconds
Time maintained above: Temperature (T_L) Time (t_L)	 217℃ 60-150 seconds
Peak Temperature (Tp)	260+0℃
Time within 5℃ of actual Peak Temperature (tp)	20-40 seconds
Ramp-down Rate	6℃/second max.
Time 25℃ to Peak Temperature	8 minutes max.



2. Condition of hand Soldering

Temperature: 370℃ max.

Time: 3sec. max.