

## SMA Plastic-Encapsulate Diodes

### LOW VF Schottky Rectifier Diodes

#### Features:

- $I_{F(AV)}$  5A
- $V_{RRM}$  20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

#### Applications:

- Rectifier

#### Marking

- SS5X  
X : From 2L To 20L

SMA



#### Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	KS5														
				2L	3L	4L	5L	6L	8L	10L	15L	20L						
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		20	30	40	50	60	80	100	150	200						
Maximum RMS Voltage	$V_{RMS}$	V		14	21	28	35	42	56	70	105	140						
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave , Resistance load , FIG.1	5.0														
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	60Hz Half-sine wave , 1 cycle , $T_a=25^{\circ}C$	150														
Junction Temperature	$T_J$	$^{\circ}C$		-55 ~ +150														
Storage Temperature	$T_{STG}$	$^{\circ}C$		-55 ~ +150														

#### Electrical Characteristics (T =25°C Unless otherwise specified)

Item	Symbol	Unit	Test Condition	KS5														
				2L	3L	4L	5L	6L	8L	10L	15L	20L						
Peak Forward Voltage	$V_F$	V	$I_F=5.0A$	0.45		0.60		0.75		0.85								
Peak Reverse Current	$I_{RRM1}$	mA	$V_{RM}=V_{RRM}$	$T_a=25^{\circ}C$		0.2		0.1										
	$I_{RRM2}$			$T_a=100^{\circ}C$		10		5.0										
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^{\circ}C/W$	Between junction and ambient	75														
	$R_{\theta J-L}$		Between junction and terminal	15														

#### Notes:

Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

**Typical Characteristics**

FIG.1: FORWARD CURRENT DERATING CURVE

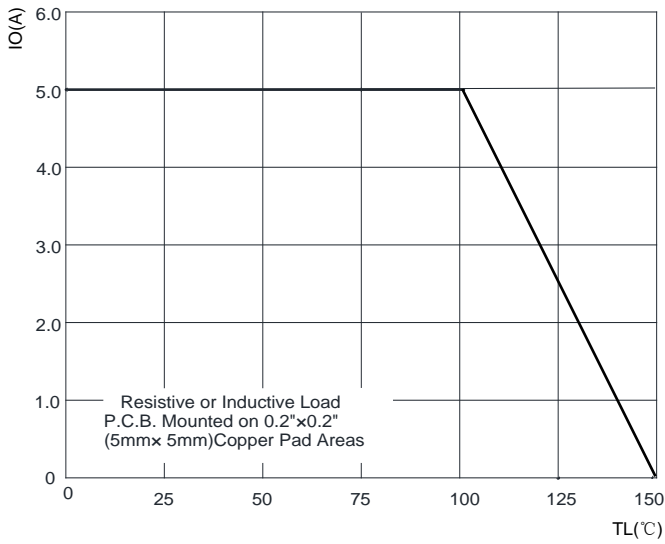


FIG.2: MAXIMUM NON-REPETITIVE FORWARD URGE CURRENT

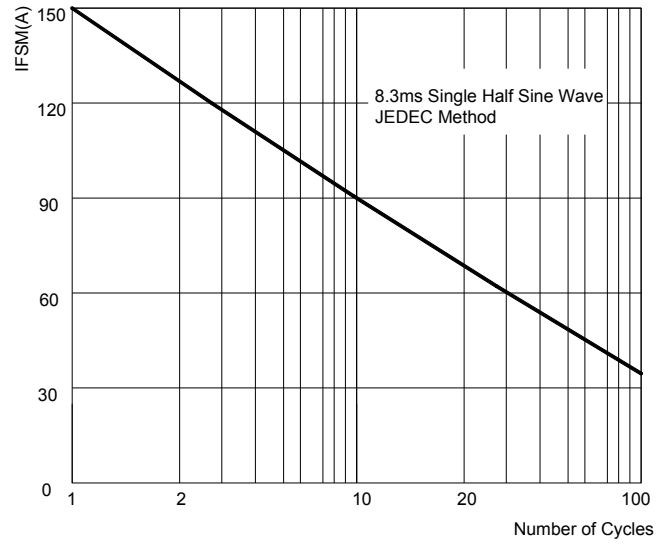


FIG.3: TYPICAL FORWARD CHARACTERISTICS

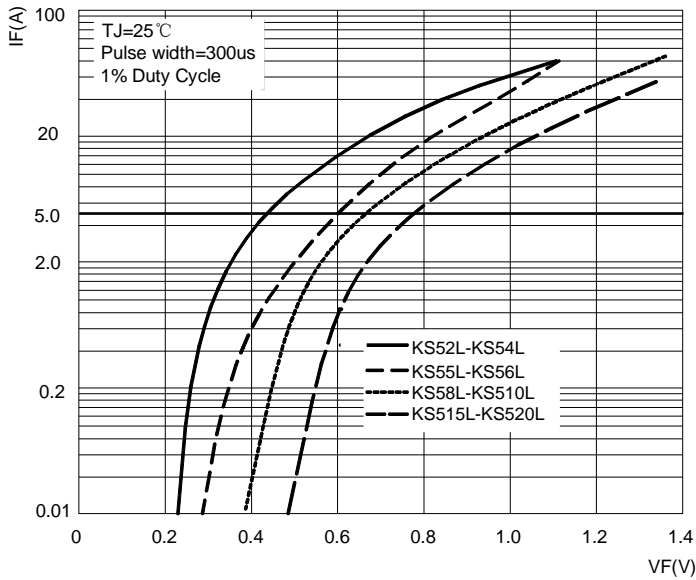
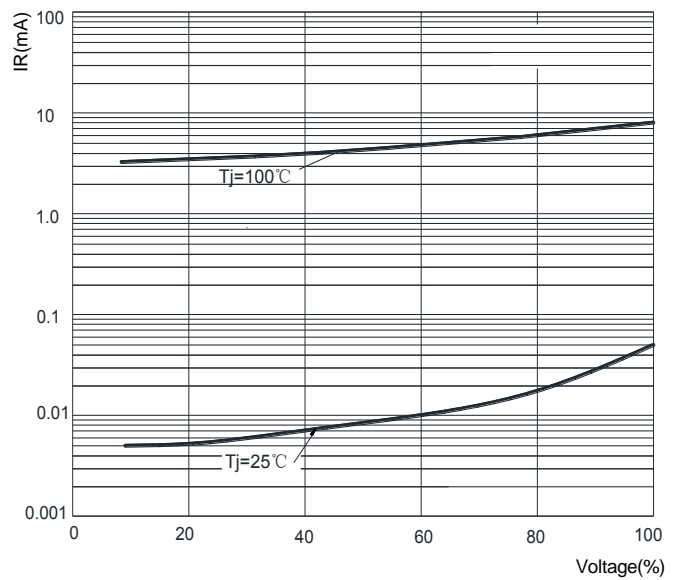
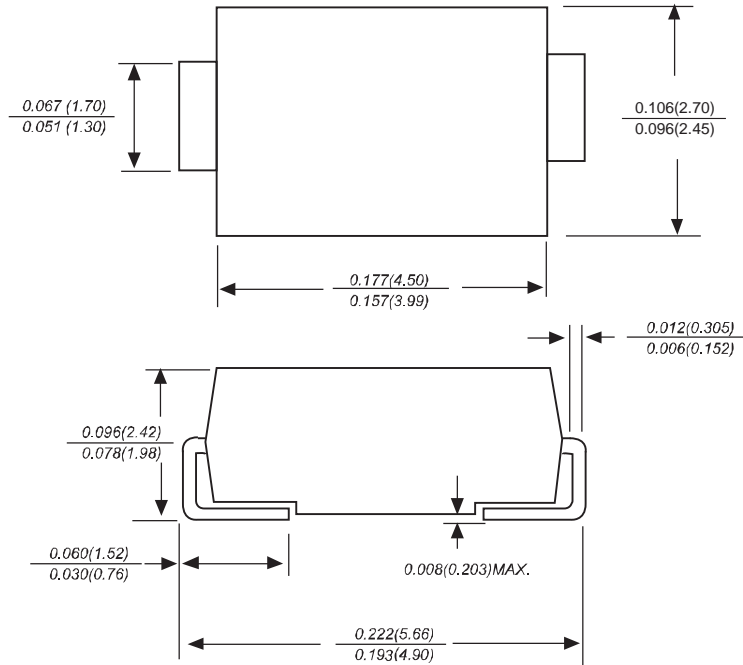


FIG.4: TYPICAL REVERSE CHARACTERISTICS

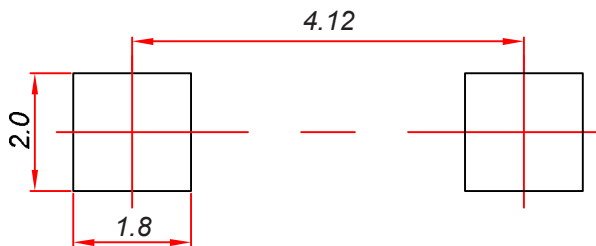


### SMA Package Outline Dimensions



Dimensions in inches and (millimeters)

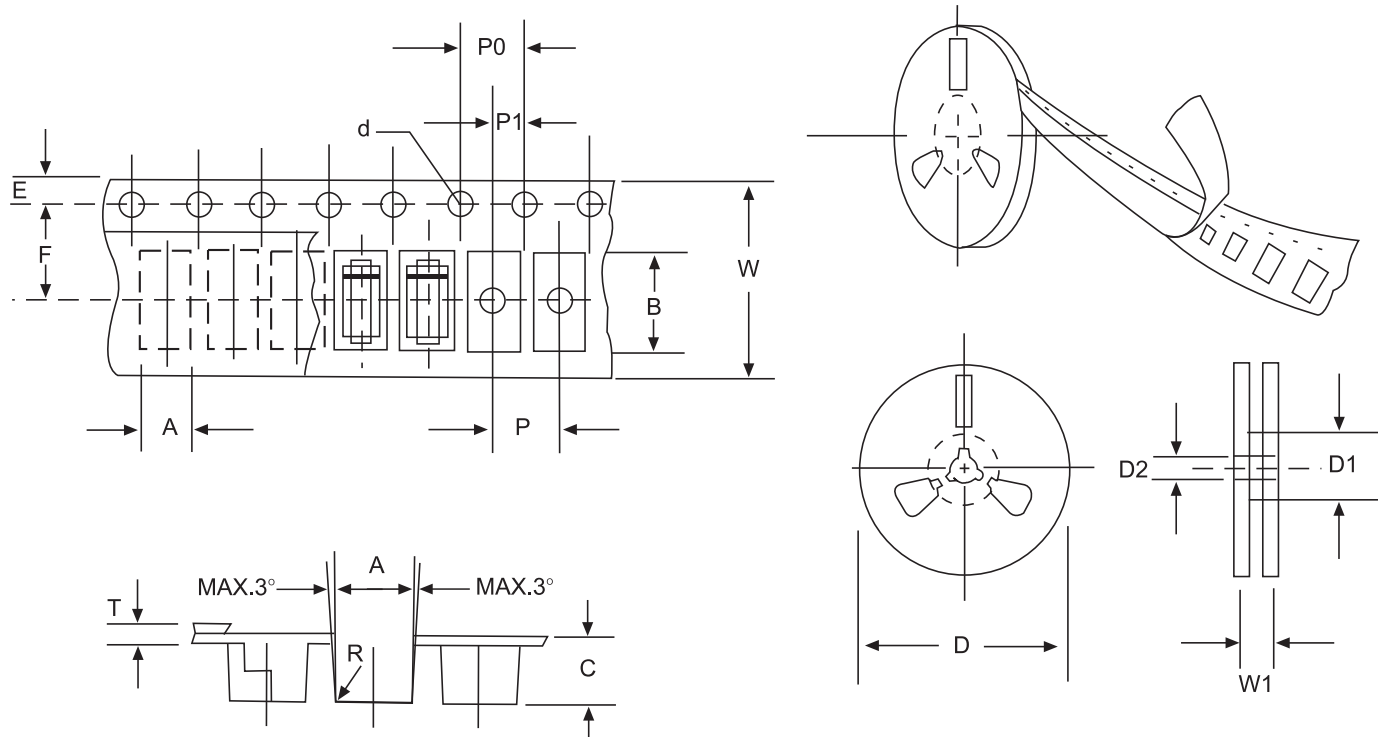
### SMA Suggested Pad Layout



**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05 \text{ mm}$ .
3. The pad layout is for reference purposes only.

**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)
Strocket 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