SMC Plastic-Encapsulate Diodes

LOW VF Schottky Rectifier Diodes

Features:

- $I_{F(AV)}$ 15A
- V_{RRM} 20V-200V
- High surge current capability
- Polarity: Color band denotes cathode

SMC

Applications:

- Rectifier

Marking

- SS15X

X：From 02L To 20L

Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	KSS15								
				02L	03L	04L	05L	06L	08L	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,TL(FIG.1)	15.0								
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave , 1 cycle , Ta =25℃	200								
Junction Temperature	T_J	℃		-55~+150								
Storage Temperature	T_{STG}	℃		-55 ~ +150								

Electrical Characteristics (T =25℃ Unless otherwise specified）

Item	Symbol	Unit	Test Condition		KSS15							
					02L	03L	04L	05L	06L	08L	10L	15L	20L
Peak Forward Voltage	V_{FM}	V	I_{FM} =10.0A		0.45			0.55		0.65		0.75	
Peak Reverse Current	I_{RRM1}	mA	$V_{RM}=V_{RRM}$	Ta =25℃	0.2								
	I_{RRM2}			Ta =100℃	20.0								
Thermal Resistance(Typical)	$R_{\theta J-A}$	℃/W	Between junction and ambient		50								
	$R_{\theta J-L}$		Between junction and lead		20								
Typical junction capactiance	CJ	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.		1250								

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

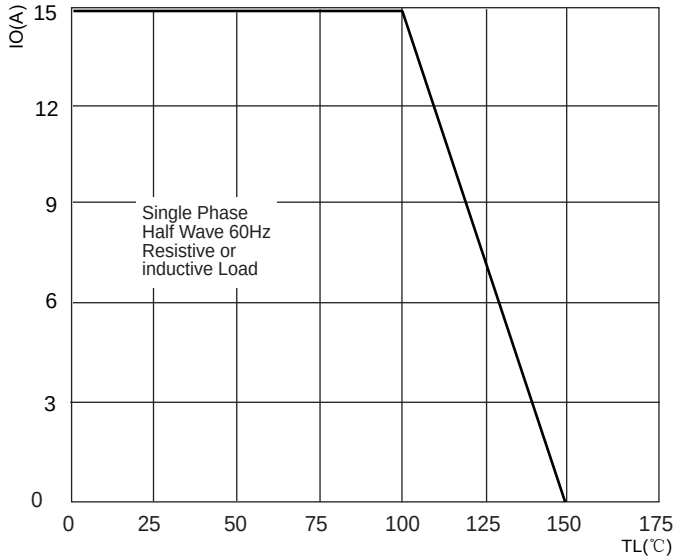


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

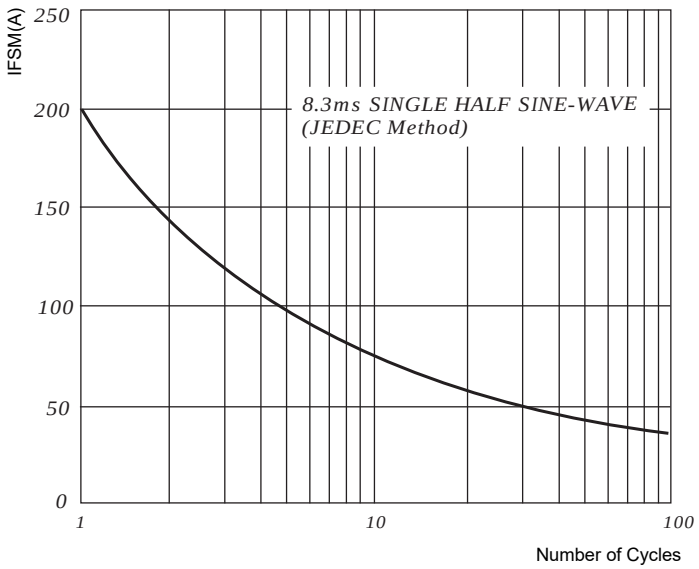


FIG.3: TYPICAL FORWARD CHARACTERISTICS

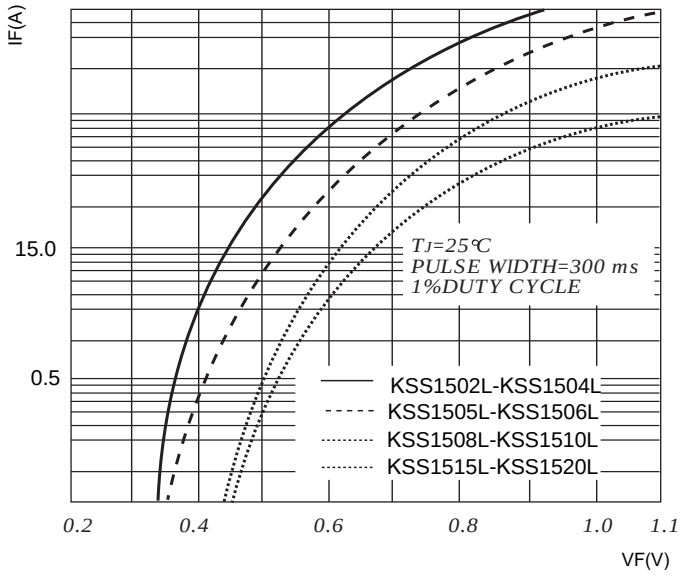
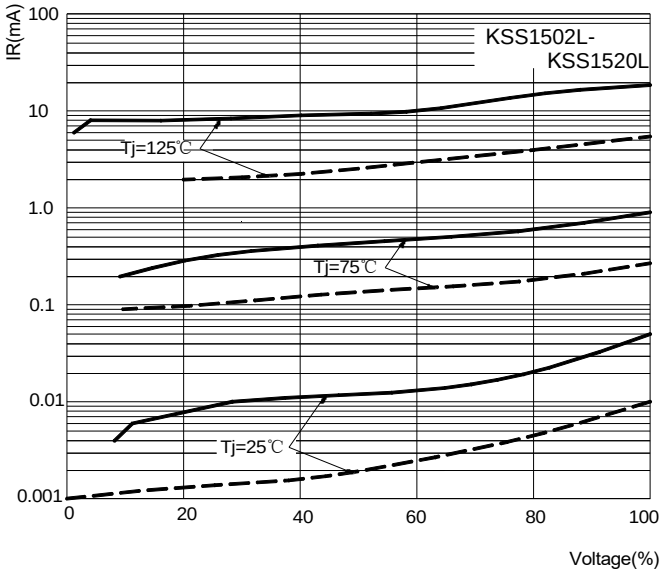
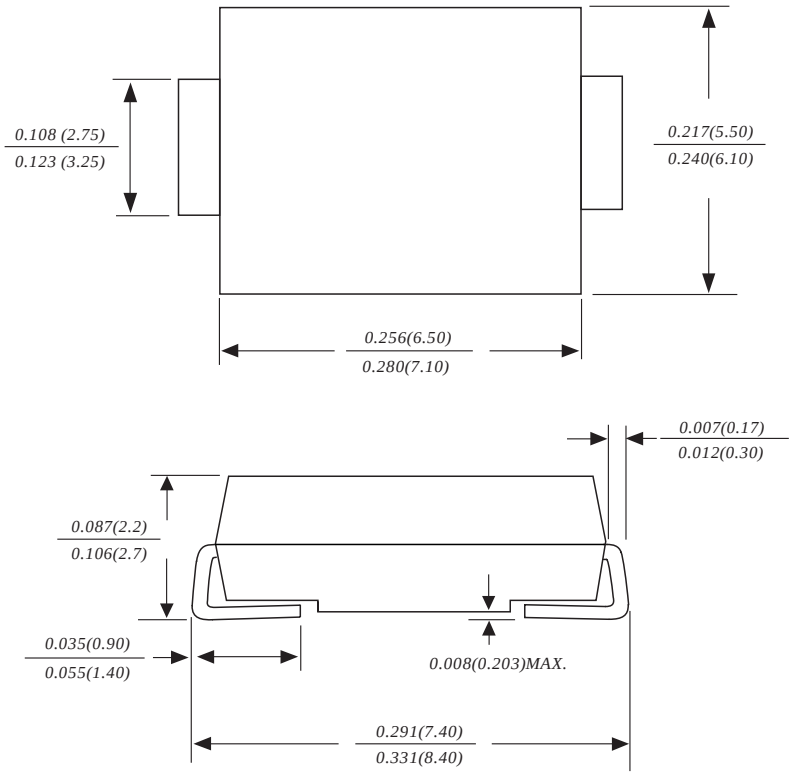


FIG.4：TYPICAL REVERSE CHARACTERISTICS

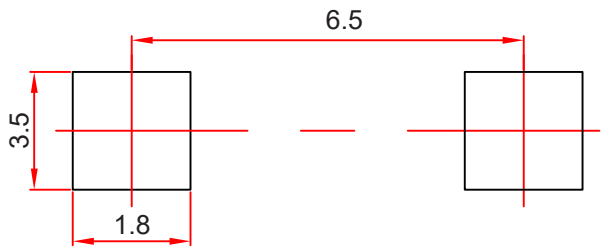


SMC Package Outline Dimensions



Dimensions in inches and (millimeters)

SMC Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

Reel Taping Specifications For Surface Mount Devices-SMC

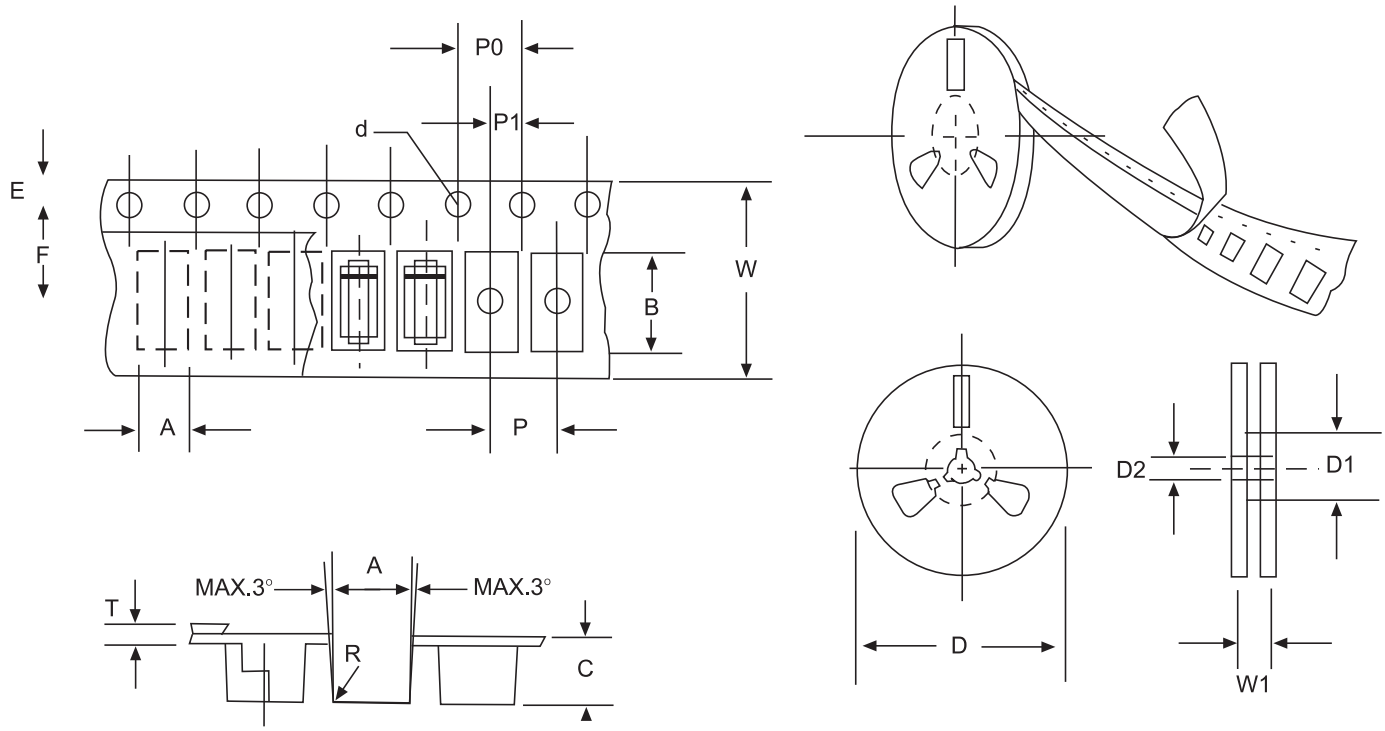


FIG:CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

ITEM	SYMBOL	SMC mm(inch)
Carrier width	A	6.05±0.1(0.238±0.004)
Carrier length	B	8.31±0.1(0.327±0.004)
Carrier depth	C	2.70±0.1(0.106±0.004)
Sprocket hole	d	1.55±0.05(0.061±0.002)
Reel outside diameter	D	330±2.0(13±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	7.65±0.05(0.301±0.002)
Punch hole pitch	P	8.0±0.1(0.315±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	0.3±0.1(0.012±0.004)
Tape width	W	16.0±0.2(0.630±0.008)
Reel width	W1	24.0±2.0(0.945±0.079)

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