

SMCG Plastic-Encapsulate Diodes

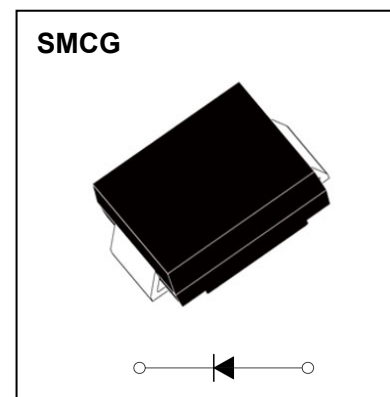
Schottky Rectifier

Features

- I_o 8A
- VRRM 20V-200V
- Low forward voltage drop
- High surge current capability
- Metal silicon junction, majority carrier conduction

Mechical Data

- Case: JEDEC DO-214AB molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity: Color band denotes cathode end



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SS 82	SS 83	SS 84	SS 85	SS 86	SS 88	SS 810	SS 815	SS 820
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
Maximum DC Blocking Voltage	V _{DC}	V		20	30	40	50	60	80	100	150	200
Average Forward Current	I _{F(AV)}	A	60HZ Half-sine wave, Resistance load, TL(Fig.1)	8.0								
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz Half-sine wave ,1 cycle , Ta =25℃	200								
Junction Temperature	T _J	℃		-55~+125			-55~+150					
Storage Temperature	T _{STG}	℃		-55 ~ +150								

Electrical Characteristics ($T_a=25^{\circ}C$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SS 82	SS 83	SS 84	SS 85	SS 86	SS 88	SS 810	SS 815	SS 820
Peak Forward Voltage	V _F	V	I _F =8.0A		0.55			0.70		0.85		0.95	
Peak Reverse Current	I _{RRM1}	mA	V _{RM} =V _{RRM}	T _a =25℃	0.5					0.1			
	T _a =100℃			10					5.0				
Thermal Resistance(Typical)	R _{θJA}	℃/W	Between junction and ambient		47								
	Between junction and terminal		13										
	Between junction and case		12										
Juction Capacitance (Typical)	Cj	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.		520			340		245		170	

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

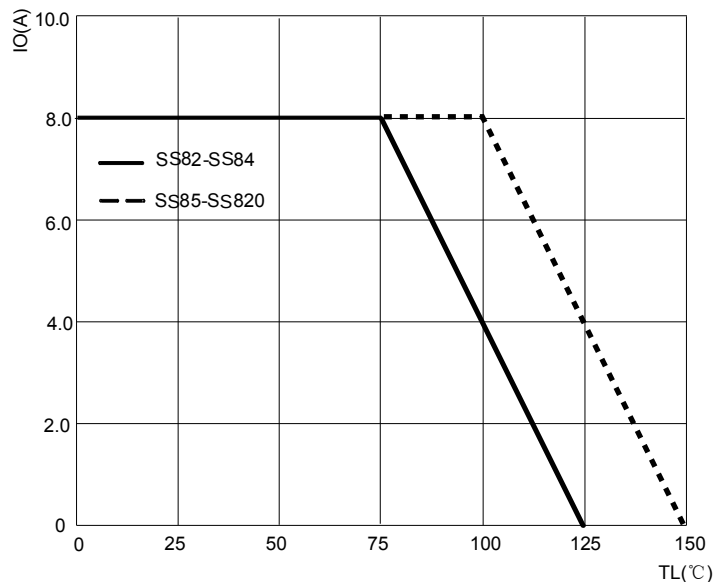


FIG2: Surge Forward Current Capacity

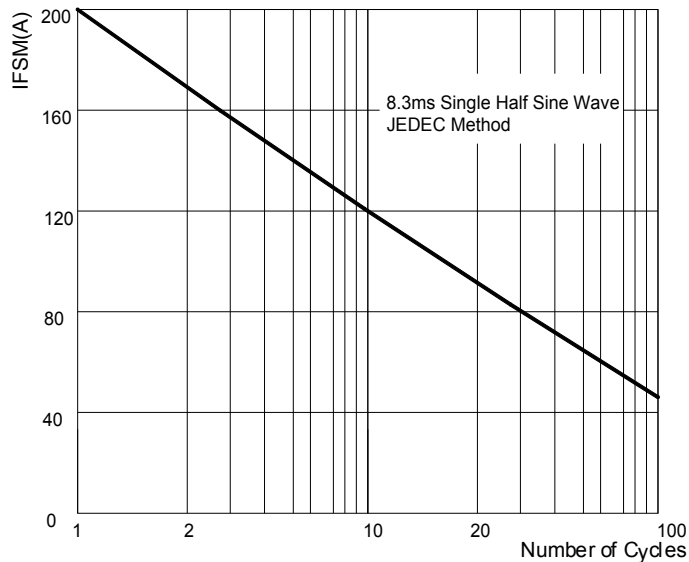


FIG.3: TYPICAL FORWARD CHARACTERISTICS

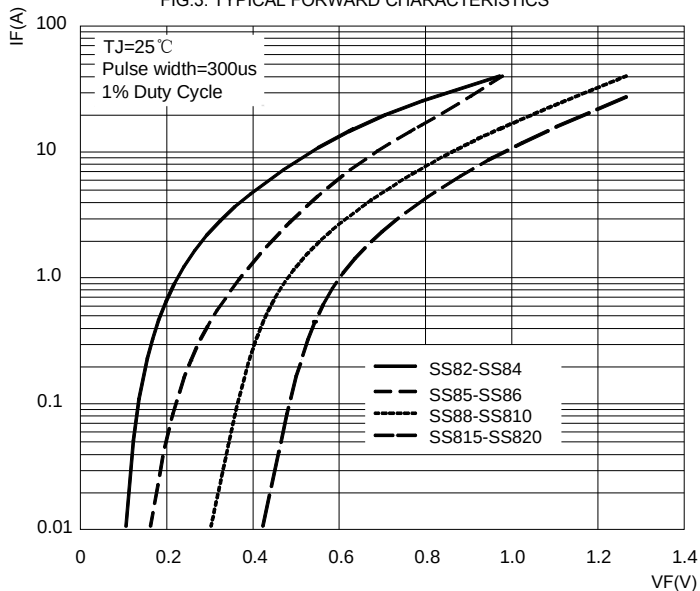
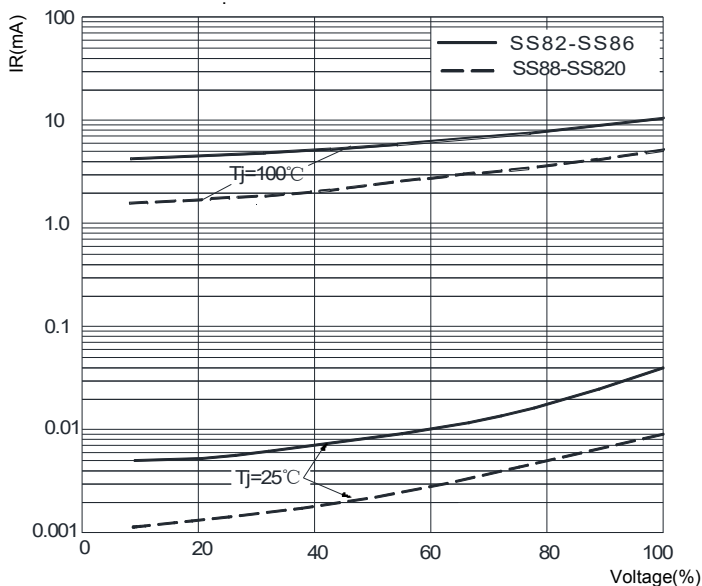
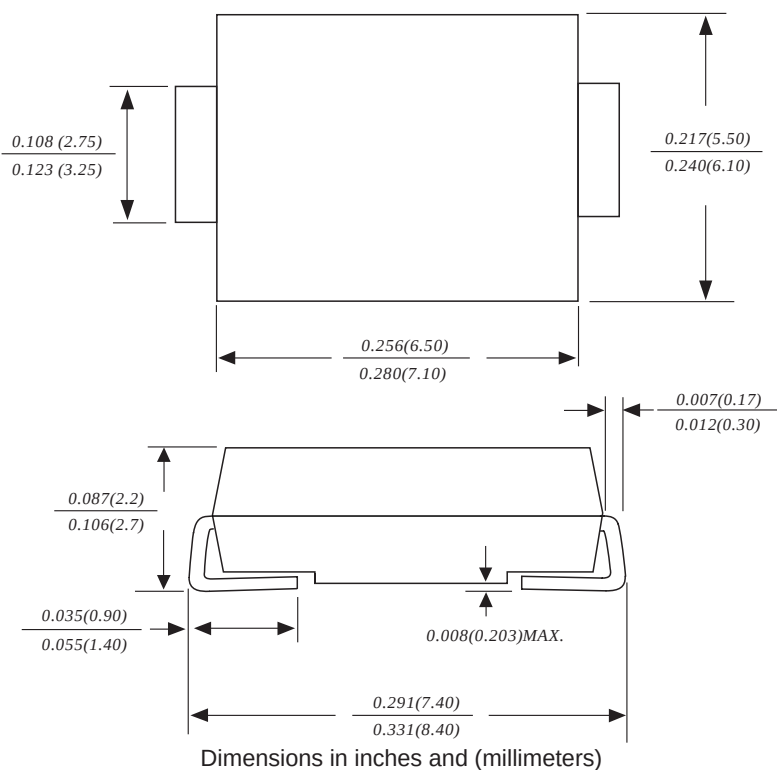


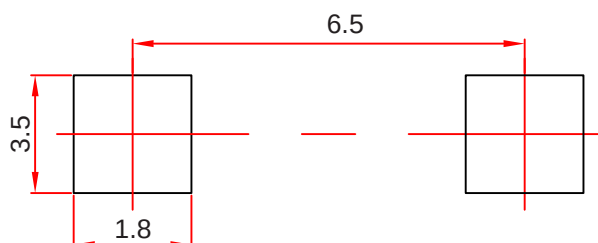
FIG.4: TYPICAL REVERSE CHARACTERISTICS



SMCG Package Outline Dimensions



SMCG 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.

Ordering Information

Part Number	Package	Shipping Quantity
SS82-SS820	SMCG	3000/tape&Reel

Marking Diagram



X: From 2 To 20

Reel Taping Specifications For Surface Mount Devices–SMCG

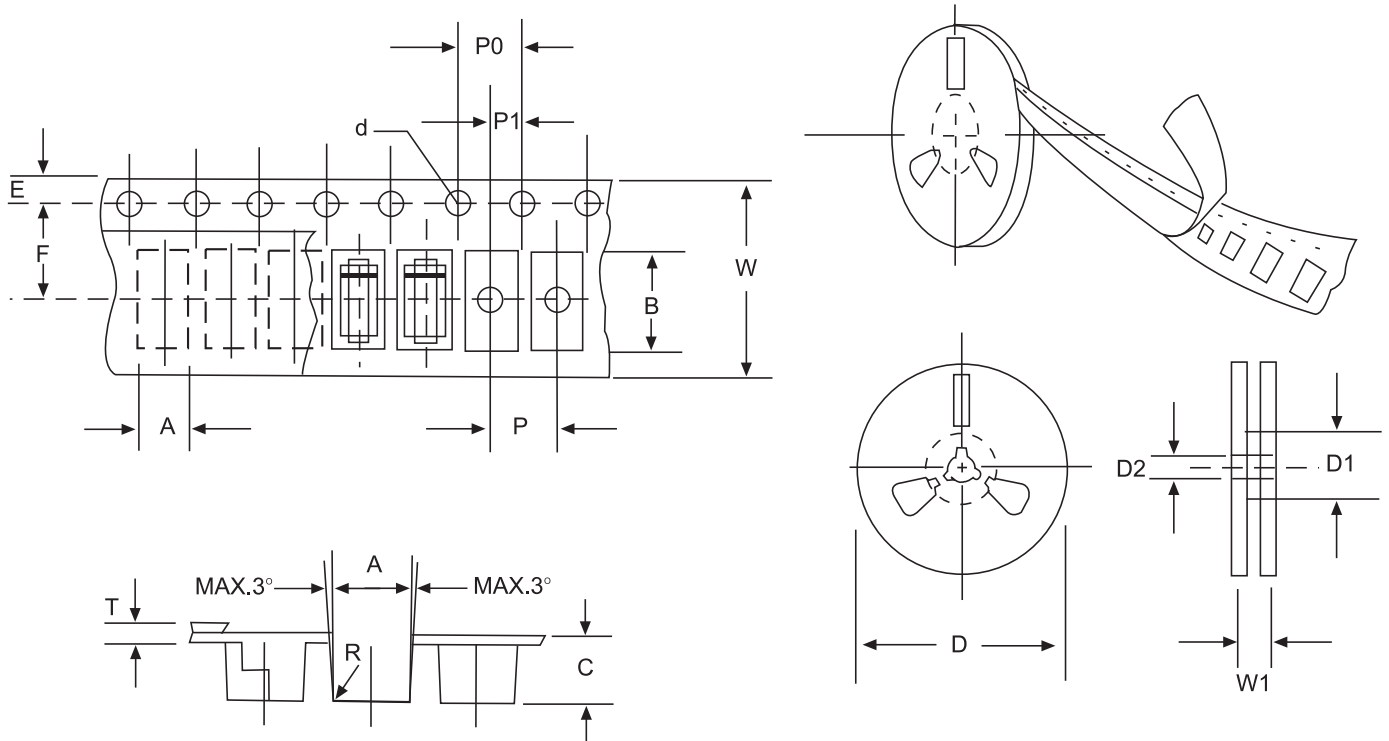


FIG: CONFIGURATION OF SURFACE MOUNTED DEVICES TAPING

ITEM	SYMBOL	SMCG 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)
Sprocket 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)
Total 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 packde in accordance with EIA standard RS-481-A and specification given above.