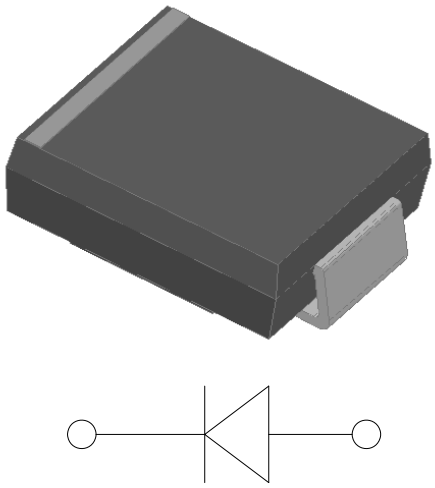
Surface Mount Schottky Rectifier



Features

- Guardring for overvoltage protection
- Low power loss
- Extremely fast switching
- High forward surge capability
- High frequency operation
- Solder dip 260 °C max. 10 s, per JESD 22-B106

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, and polarity protection applications.

Mechanical Data

- **Package**: DO-214AB (SMC)
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Color band denotes the cathode end

■ Maximum Ratings (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS82	SS84	SS86	SS810	SS815	SS820
Device marking code			SS82	SS84	SS86	SS810	SS815	SS820
Repetitive Peak Reverse Voltage	V_{RRM}	V	20	40	60	100	150	200
Average Rectified Output Current @60Hz sine wave, Resistance load, Ta (FIG.1)	I_O	A	8.0					
Surge(Non-repetitive)Forward Current @60Hz Half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	120					
Storage Temperature	T_{stg}	℃	-55 ~+150					
Junction Temperature	Tj	℃	-55~+125		-55 ~+150			

■ Electrical Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS82	SS84	SS86	SS810	SS815	SS820
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=8.0A	0.55	0.60	0.70	0.85	0.95	
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	mA	Ta=25℃	0.2			0.1		
			Ta=100℃	20			5.0		
Typical junction capacitance	Cj	pF	Measured at 1MHz and Applied Reverse Voltage of 4.0 V.D.C.	450		350	270	180	

Note1:Pulse test:300uS pulse widh,1% duty cycle

Note2:Pulse test:pulse widh 40mS

■ Thermal Characteristics (Ta=25℃ Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SS82	SS84	SS86	SS810	SS815	SS820
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	℃/W	45(1)					
	Between junction and lead	$R_{\theta J-L}$		12(1)					

Note (1)
Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

■ Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS82~SS820	F1	Approximate 0.254	3000	/	42000	13” reel

■ Characteristics (Typical)

FIG.1: Io-TL Curve

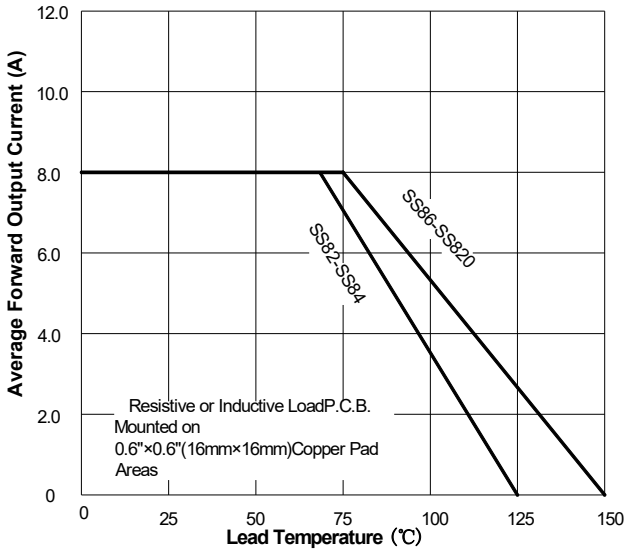


FIG.2: Forward Surge Current Capability

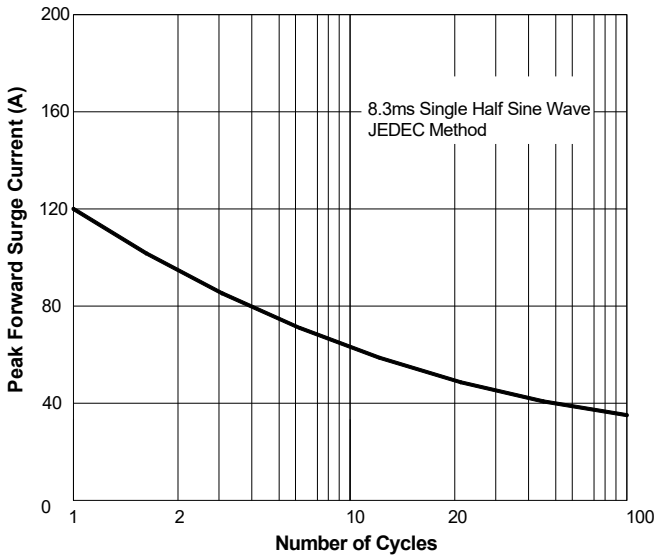


FIG.3: Forward Voltage

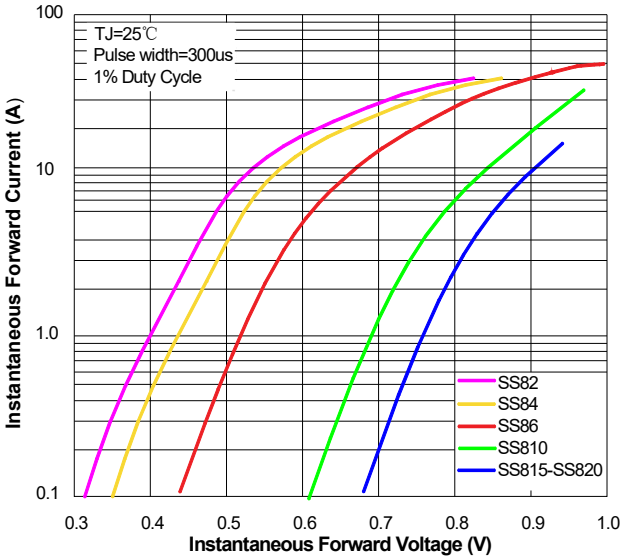
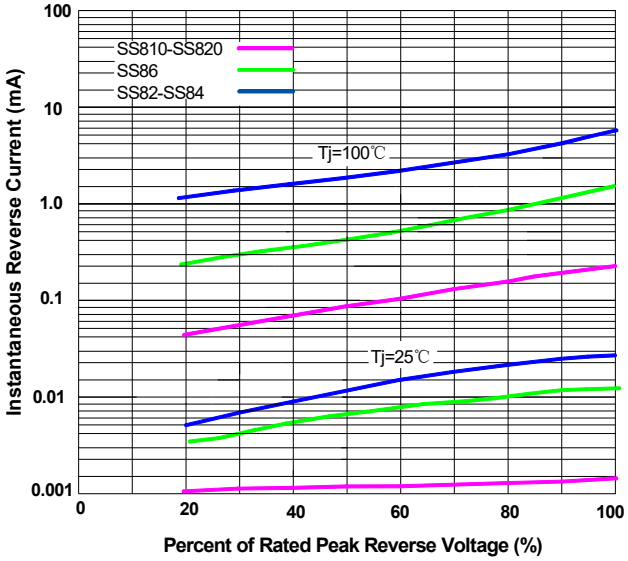
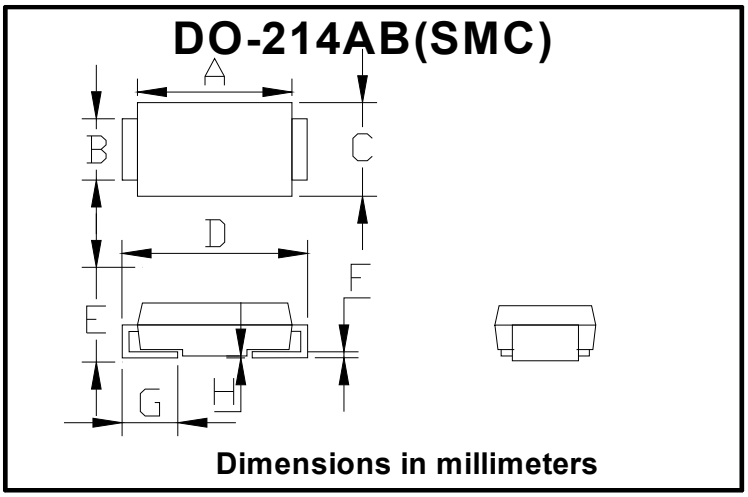


FIG.4: Typical Reverse Characteristics

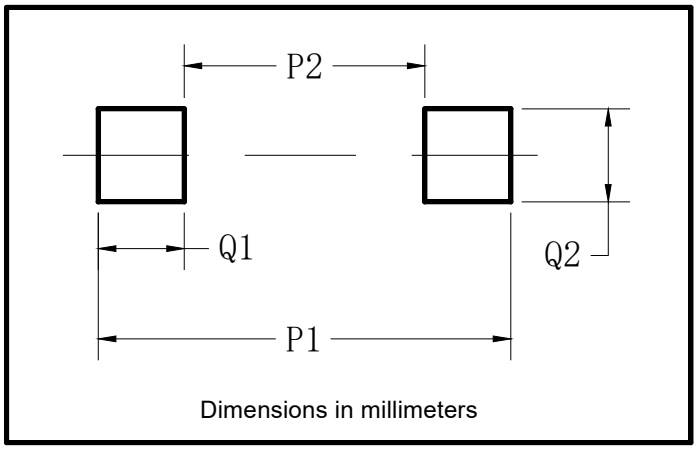


■ Outline Dimensions



DO-214AB (SMC)		
Dim	Min	Max
A	6.60	7.11
B	2.85	3.27
C	5.59	6.22
D	7.75	8.13
E	1.99	2.61
F	0.15	0.31
G	0.76	1.52
H	0.05	0.20

■ Suggested pad layout



DO-214AB (SMC)	
Dim	Min
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82

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