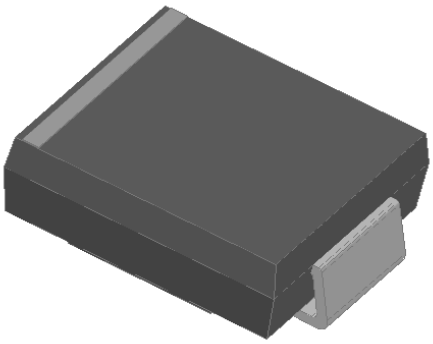
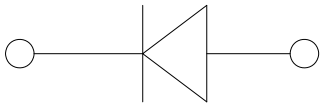
Surface Mount Schottky Rectifier





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	SS102	SS103	SS104	SS105	SS106	SS108	SS1010	SS1015	SS1020
Device marking code			SS102	SS103	SS104	SS105	SS106	SS108	SS1010	SS1015	SS1020
Repetitive Peak Reverse Voltage	V_{RRM}	V	20	30	40	50	60	80	100	150	200
Average Rectified Output Current @60Hz sine wave, Resistance load, TL (FIG.1)	I_O	A	10.0								
Surge(Non-repetitive)Forward Current @60Hz Half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	120								
Storage Temperature	Tstg	℃	-55 ~+150								
Junction Temperature	Tj	℃	-55~+125			-55 ~+150					

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS102	SS103	SS104	SS105	SS106	SS108	SS1010	SS1015	SS1020
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=8.0A	0.6			0.7		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			

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	SS102	SS103	SS104	SS105	SS106	SS108	SS1010	SS1015	SS1020
Thermal Resistance	Between junction and ambient	$R_{\theta J-A}$	℃/W	65(1)								
	Between junction and lead	$R_{\theta J-L}$		8 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
SS102~SS1020	F1	Approximate 0.254	3000	/	42000	13” reel

■ Characteristics (Typical)

FIG.1: Io-TL Curve

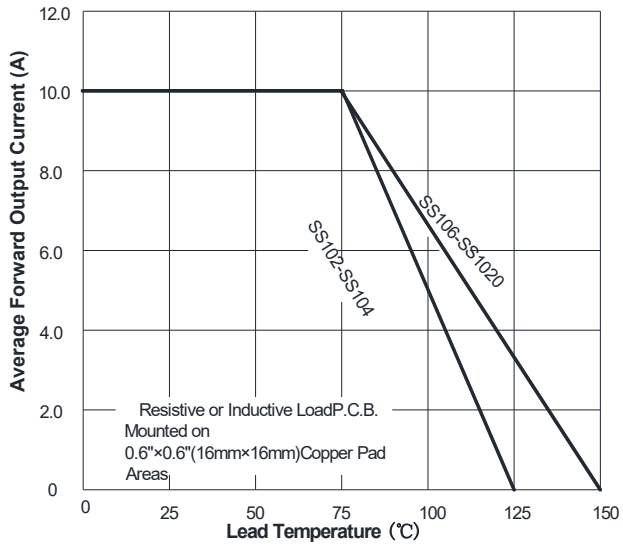


FIG.2: Forward Surge Current Capability

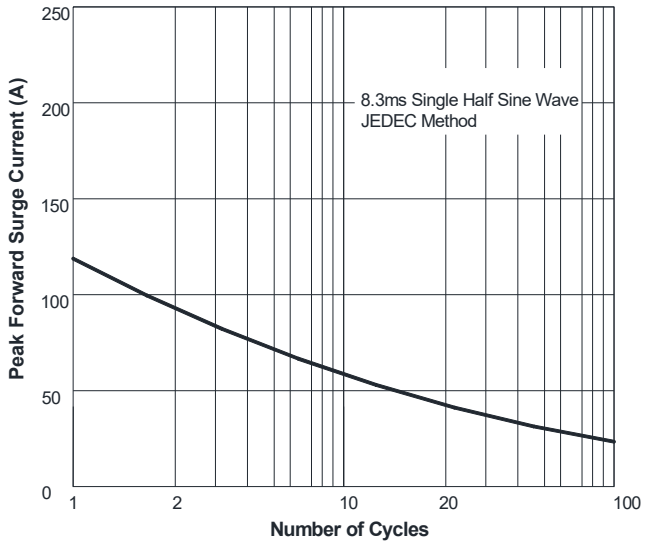


FIG.3: Forward Voltage

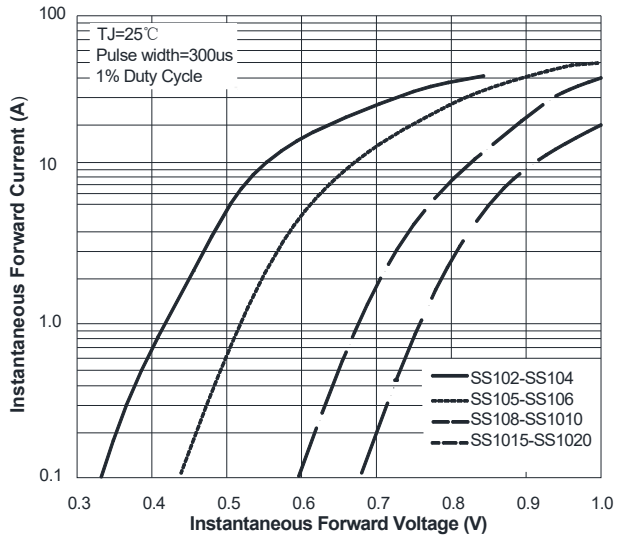
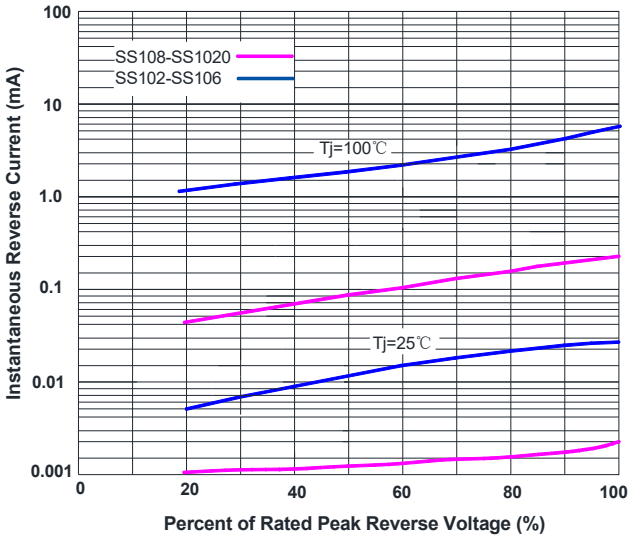
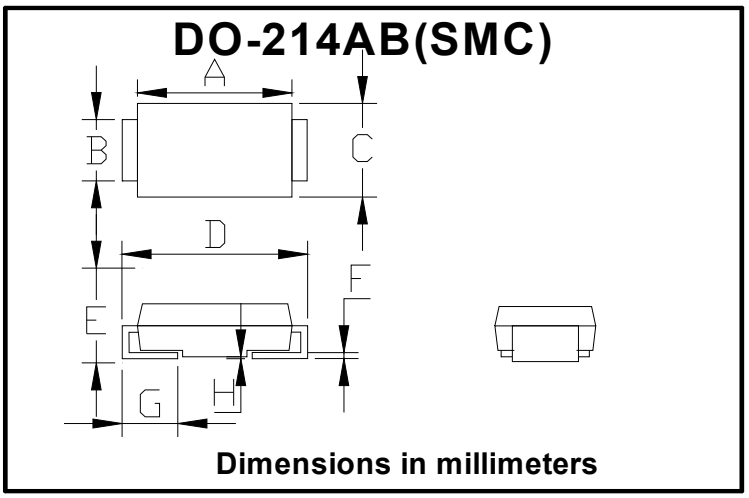


FIG.4: Typical Reverse Characteristics

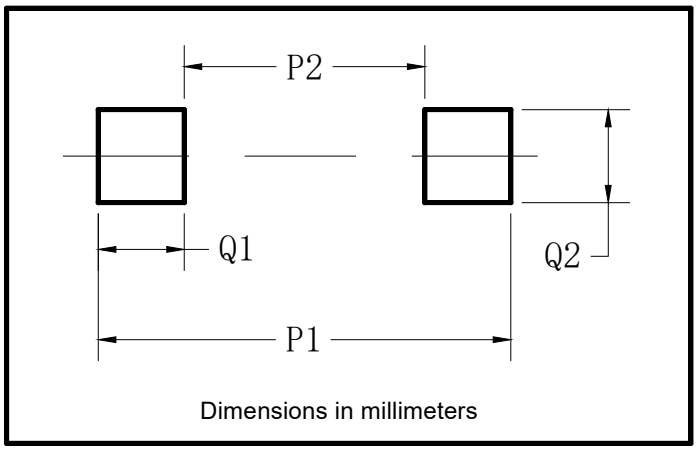


■ Outline Dimensions



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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