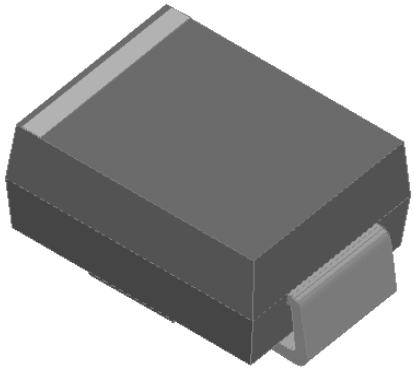
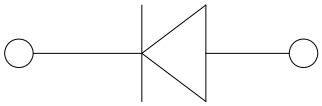
Surface Mount Schottky Rectifier





Features

- N+ IMP，Passivation Dep
- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C

Typical Applications

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

Mechanical Data

- **Package**: DO-214AA (SMB)
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

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

PARAMETER		SYMBOL	UNIT	SS								
				52BH	53BH	54BH	55BH	56BH	58BH	510BH	515BH	520BH
Device marking code				SS								
				52BH	53BH	54BH	55BH	56BH	58BH	510BH	515BH	520BH
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, T_L (FIG.1)		I_O	A	5.0								
Surge(non-repetitive) forward current	@60Hz half-sine wave, 1 cycle, Tj=25℃	I_{FSM}	A	100								
	@1ms,square wave, 1 time, Tj=25℃			200								
Typical junction capacitance @ Measured at 1MHZ and Applied Reverse Voltage of 4.0 V D.C.		Cj	pF	250			210		140		80	
Storage temperature		T_{stg}	℃	-55 ~+175								
Junction temperature		Tj	℃	-55~+150			-55 ~+175					

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

PARAMETER		SYMBOL	UNIT	TEST CONDITIONS	MIN	TYP	MAX
Instantaneous forward voltage drop per diode	SS52BH~SS54BH	V_F	V	I_{FM}=5.0A	-	0.50	0.60
	SS55BH~SS56BH				-	0.61	0.70
	SS58BH~SS510BH				-	0.77	0.85
	SS515BH~SS520BH				-	0.81	0.90
DC reverse current at rated DC blocking voltage per diode @ V_{RM}=V_{RRM}	SS52BH~SS54BH	I_{RRM}	mA	Tj=25℃	-	-	0.50
				Tj =125℃	-	-	5.0
	SS55BH~SS56BH			Tj=25℃	-	-	0.50
				Tj =125℃	-	-	5.0
	SS58BH~SS510BH			Tj=25℃	-	-	0.10
				Tj =125℃	-		5.0
	SS515BH~SS520BH			Tj =25℃	-	-	0.10
				Tj =125℃	-	-	5.0

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

Note2:Pulse test:pulse widh 40mS

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

PARAMETER	SYMBOL	UNIT	SS								
			52BH	53BH	54BH	55BH	56BH	58BH	510BH	515BH	520BH
Thermal resistance	$R_{\theta J-A}$	℃/W	58[1)]								
	$R_{\theta J-L}$		20[1)]								
	$R_{\theta J-C}$		18[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

■ Characteristics(Typical)

FIG1：Io-TL Curve

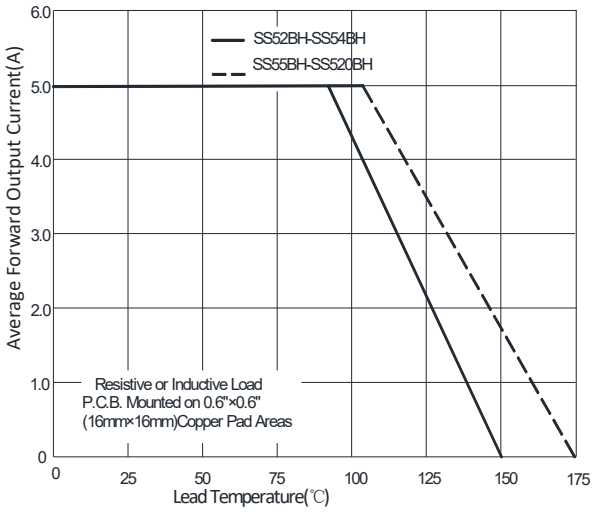


FIG2：Surge Forward Current Capability

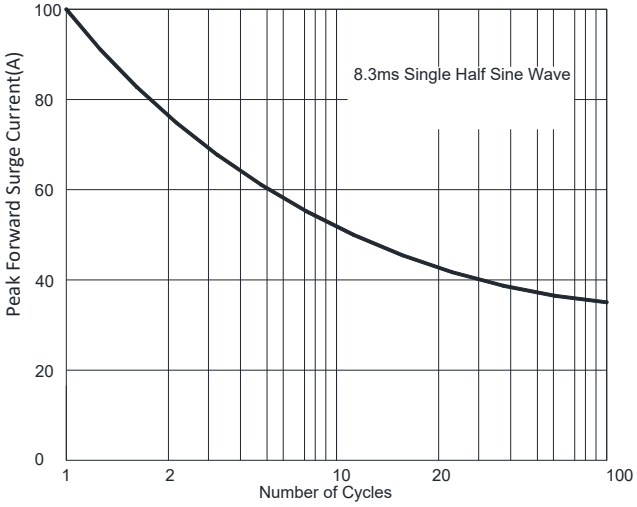


FIG3：Forward Voltage

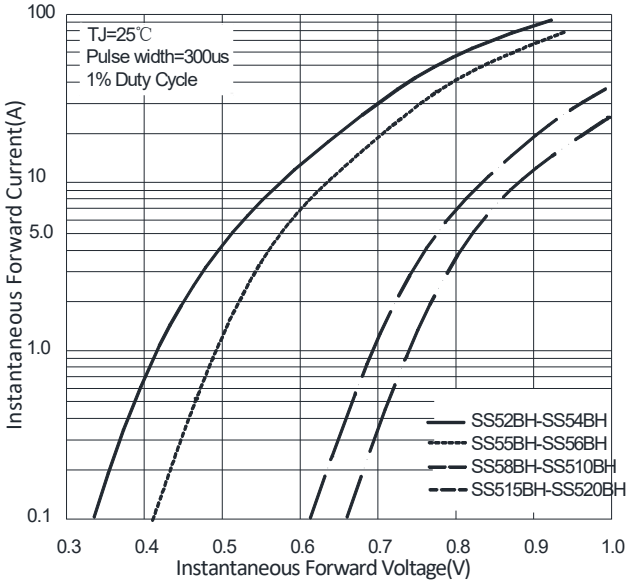
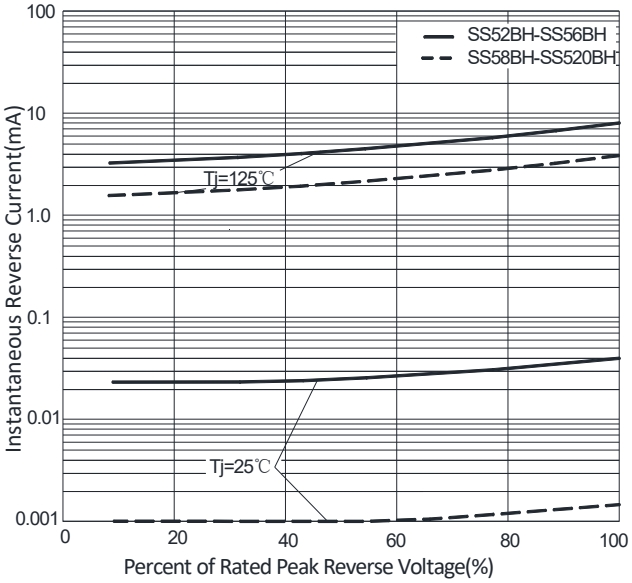
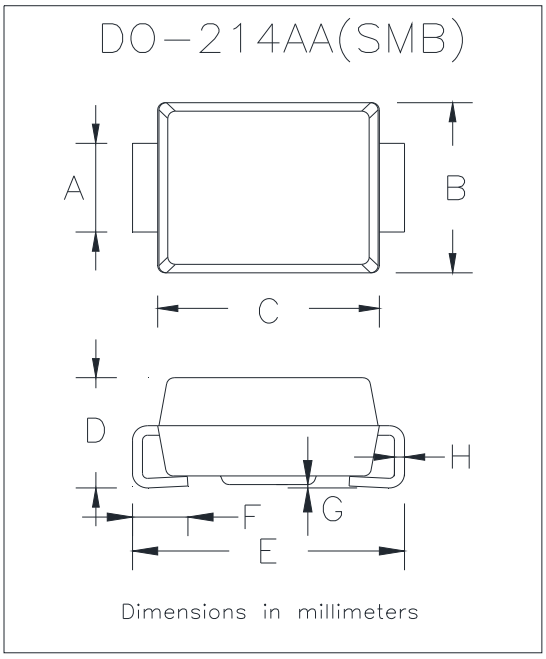


FIG4：Instantaneous Reverse Characteristics

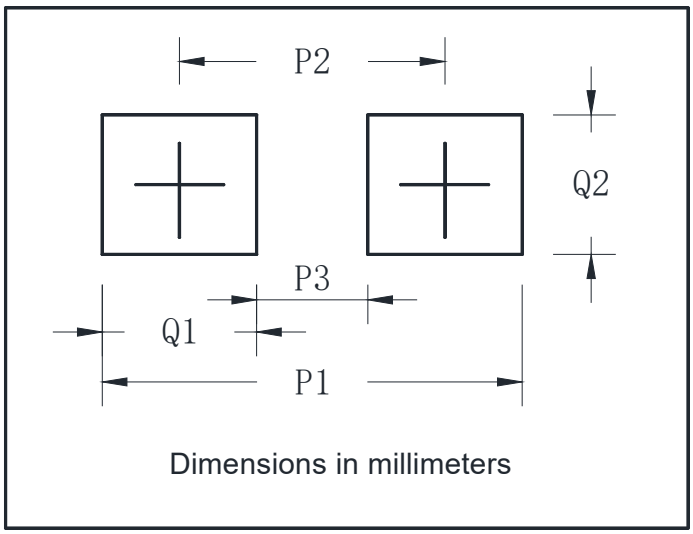


■ Outline Dimensions



DO-214AA(SMB)		
Dim	Min	Max
A	1.85	2.15
B	3.30	3.94
C	4.05	4.75
D	1.99	2.61
E	5.21	5.59
F	0.90	1.41
G	0.05	0.20
H	0.15	0.31

■ Suggested pad layout



DO-214AA(SMB)	
Dim	Millimeters
P1	6.8
P2	4.3
P3	1.8
Q1	2.5
Q2	2.3

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