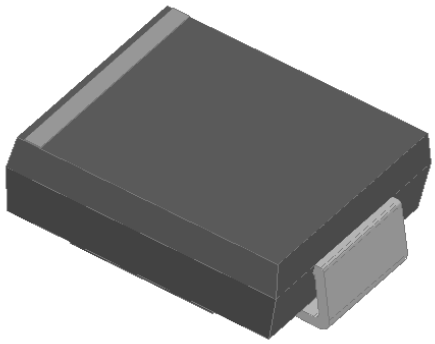
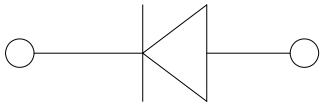
Surface Mount Schottky Rectifier





Features

- Guardring for overvoltage protection
- Low power losses
- 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	SS52	SS54	SS56	SS510	SS515	SS520
Device marking code			SS52	SS54	SS56	SS510	SS515	SS520
Repetitive Peak Reverse Voltage	V_{RRM}	V	20	40	60	100	150	200
Average Rectified Output Current @60Hz sine wave, Resistance load, TL (FIG.1)	I_O	A	5.0					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave,1 cycle, Ta=25℃	I_{FSM}	A	100					
Storage Temperature	Tstg	℃	-55 ~+175					
Junction Temperature	Tj	℃	-55~+150			-55 ~+175		

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

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS52	SS54	SS56	SS510	SS515	SS520
Maximum instantaneous forward voltage drop per diode	V_F	V	I_{FM}=5.0A	0.55	0.60	0.70	0.85	0.90	
Maximum DC reverse current at rated DC blocking voltage per diode	I_R	mA	Ta=25℃	0.2			0.1		
			Ta=100℃	20			5		
Typical junction capacitance	Cj	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	280		220	180	100	

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

Note2:Pulse test:pulse widh 40mS

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

PARAMETER		SYMBOL	UNIT	SS52	SS54	SS56	SS510	SS515	SS520
Thermal Resistance	Junction to ambient	$R_{\theta J-A}$	℃/W	47(1)					
	Junction to lead	$R_{\theta J-L}$		13(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
SS52~SS520	F1	Approximate 0.251	3000	6000	42000	13” reel

■ Characteristics (Typical)

FIG1：Io-TL Curve

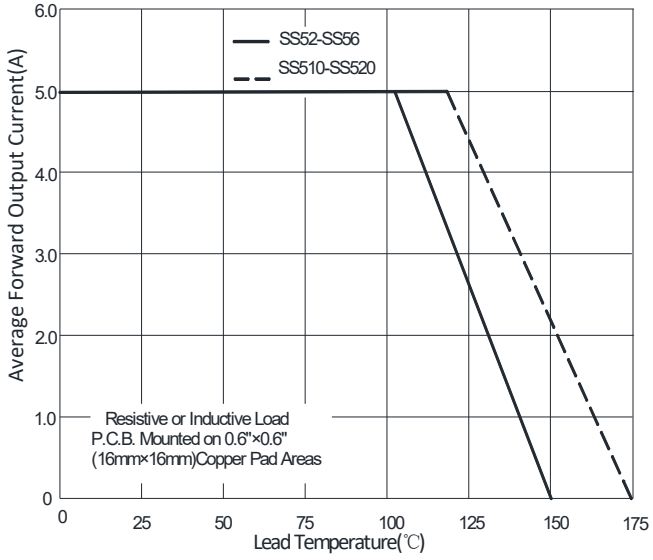


FIG.2: Forward Surge Currrent Capability

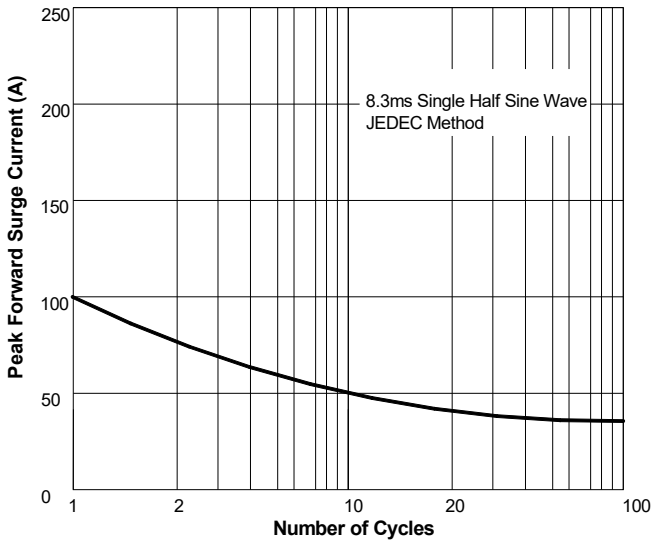


FIG.3: Forward Voltage

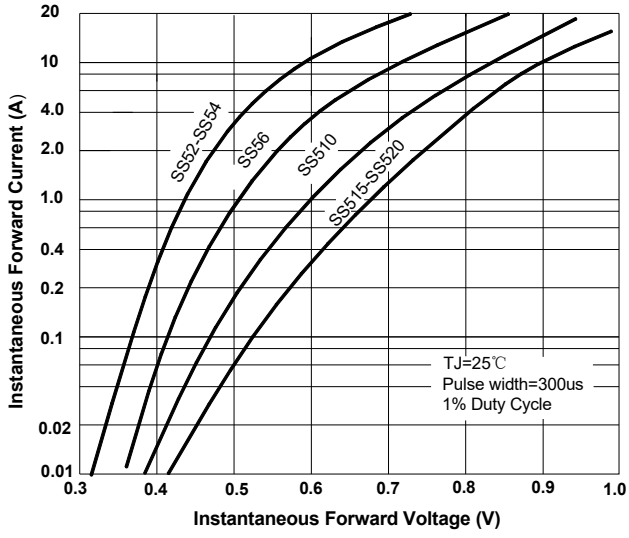
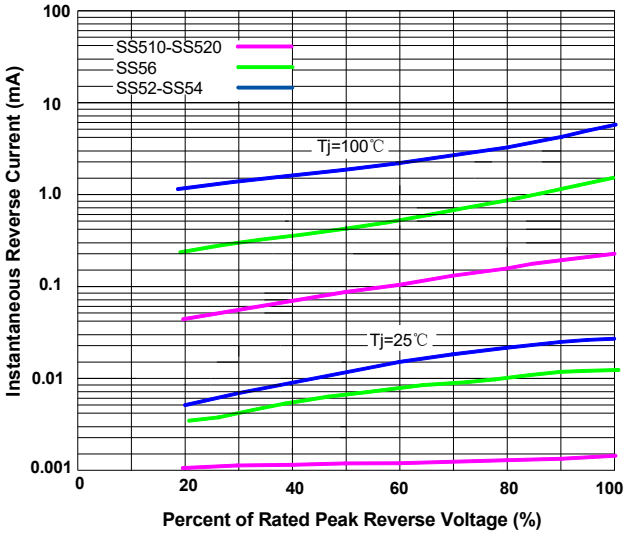
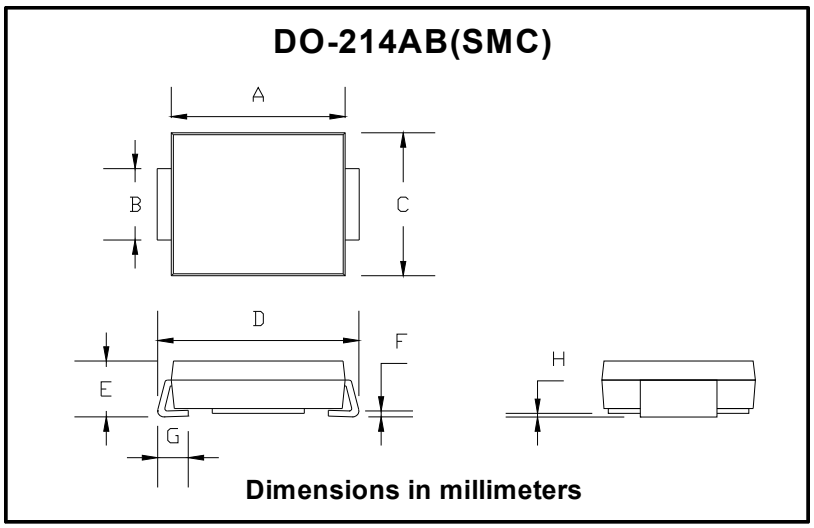


FIG.4: Typical Reverse Characteristics

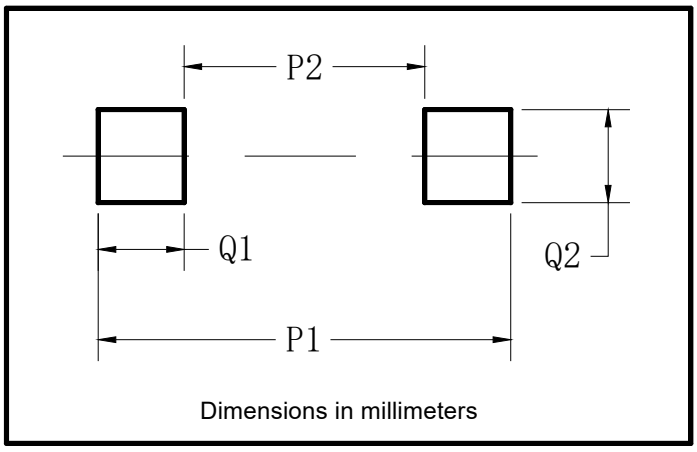


■ Outline Dimensions



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



Dim	Typ
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82

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