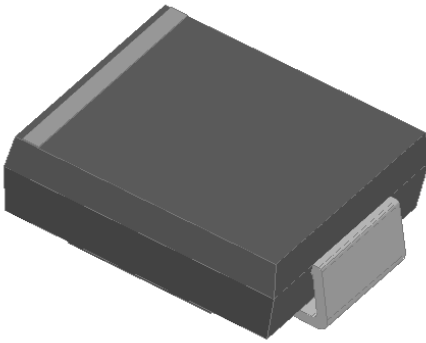


Surface Mount Schottky Rectifier

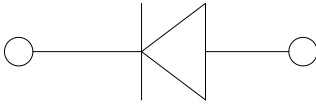


Features

- 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 (T_a=25°C 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, T _a (FIG.1)	I _o	A	5.0					
Forward Surge Current (Non-repetitive) @60Hz Half-sine wave, 1 cycle, T _a =25°C	I _{FSM}	A	100					
Storage Temperature	T _{stg}	°C	-55 ~+150					
Junction Temperature	T _j	°C	-55~+125			-55 ~+150		

■ Electrical Characteristics (T_a=25°C 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	T _a =25°C	0.2			0.1		
			T _a =100°C	20			5		
Typical junction capacitance	C _j	pF	Measured at 1MHZ and Applied Reverse Voltage of 4.0 V.D.C.	280		220	180	100	



SS52 THRU SS520

■ Thermal Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER		SYMBOL	UNIT	SS52	SS53	SS54	SS55	SS56	SS58	SS510	SS515	SS520
Thermal Resistance	Junction to ambient	R _{θJ-A}	°C/W	47 ⁽¹⁾								
	Junction to lead	R _{θJ-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)

PREFERRED 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)

FIG.1: I_o-T_a Curve

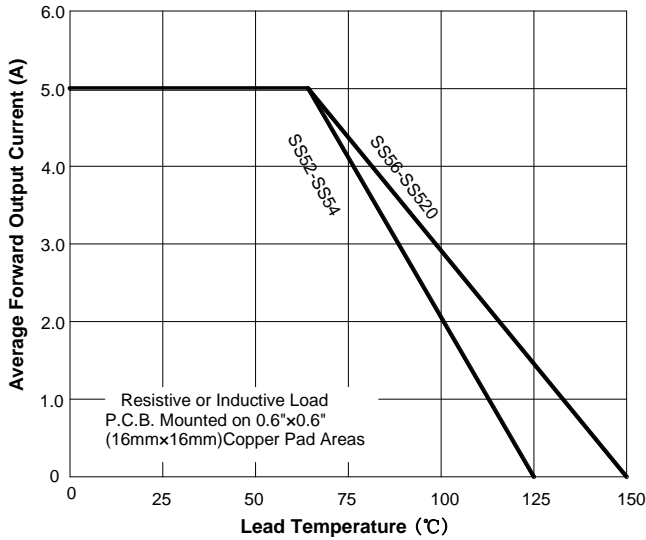


FIG.2: Forward Surge Current Capability

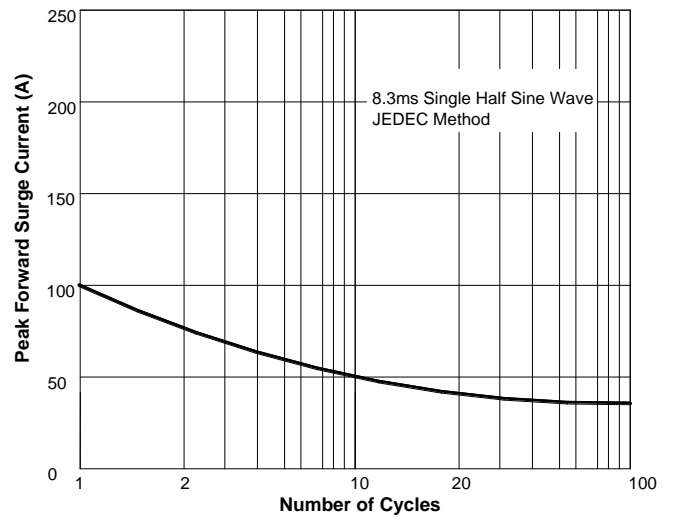


FIG.3: Forward voltage

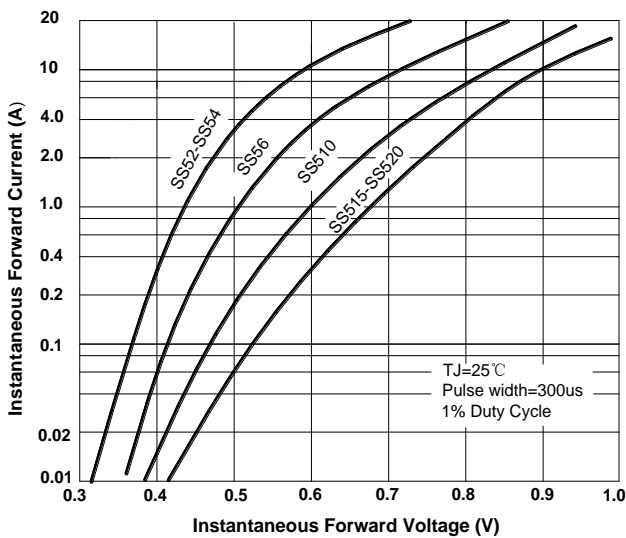
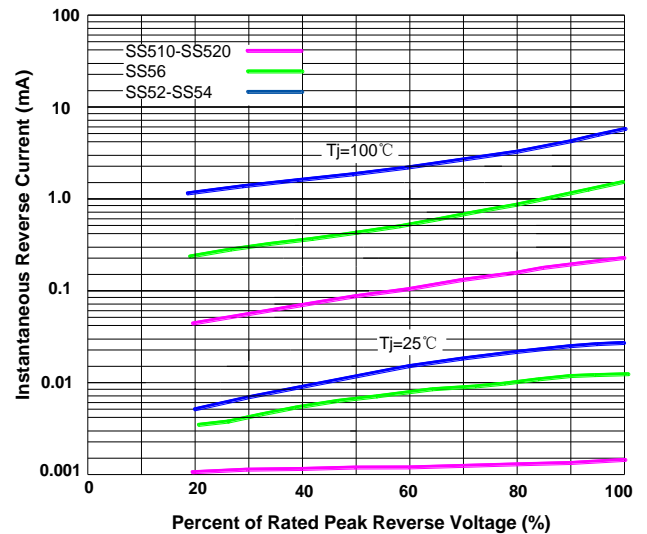


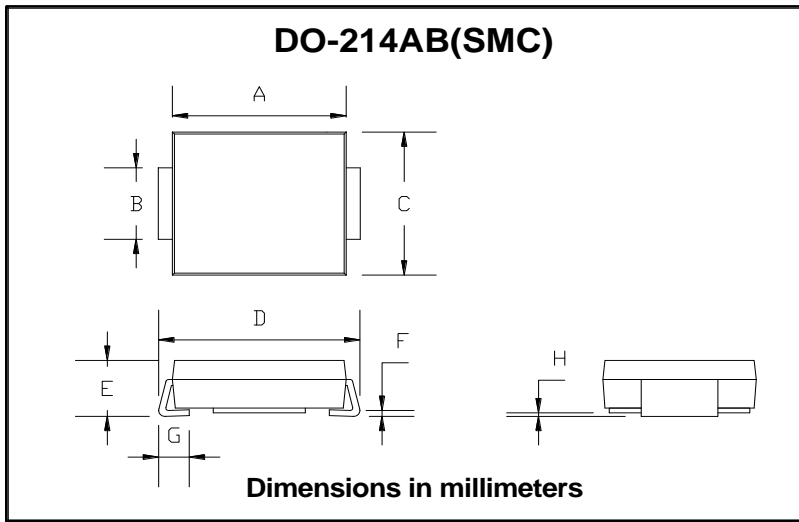
FIG.4: Typical Reverse Characteristics





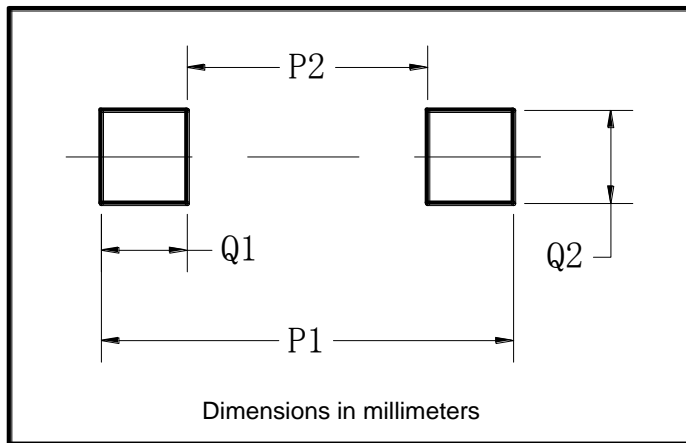
SS52 THRU SS520

■ 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	0.10	0.20

■ Suggested pad layout



Dim	Typ
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82



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