

Surface Mount Schottky Rectifier

Features

- 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

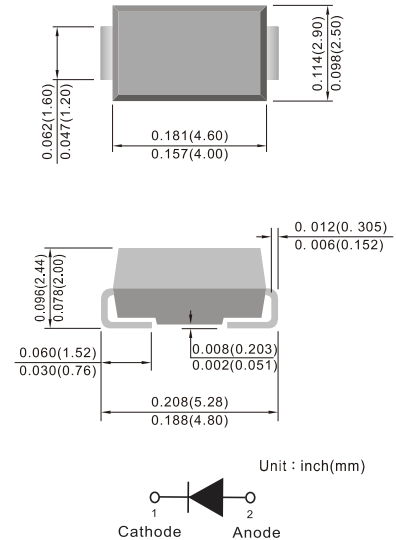
Typical Applications

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

Mechanical Data

- **Package:** DO-214AC (SMA)
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

DO-214AC (SMA)



Maximum Ratings (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	SS									
			52	53	54	55	56	58	510	515	520	
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	5.0									
Surge(non-repetitive)forward current @ 60Hz half-sine wave,1 cycle, T _a =25°C	I _{FSM}	A	150									
Storage temperature	T _{stg}	°C	-55 ~+150									
Junction temperature	T _j	°C	-55 ~+150					-55 ~+175				

Electrical Characteristics (T_a=25°C Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	SS									
				52	53	54	55	56	58	510	515	520	
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =5.0A	0.55			0.70		0.85		0.95		
Maximum DC reverse current at rated DC blocking voltage per diode@ V _{RM} =V _{RRM}	I _{RRM}	mA	T _a =25°C	0.5					0.1				
			T _a =100°C	10					5				

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

PARAMETER	SYMBOL	UNIT	SS									
			52	53	54	55	56	58	510	515	520	
Thermal resistance	R _{θJA}	°C/W	60 ⁽¹⁾									
	R _{θJL}		22 ⁽¹⁾									

Note

(1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas



■ Characteristics (Typical)

FIG1: I_o -TL Curve

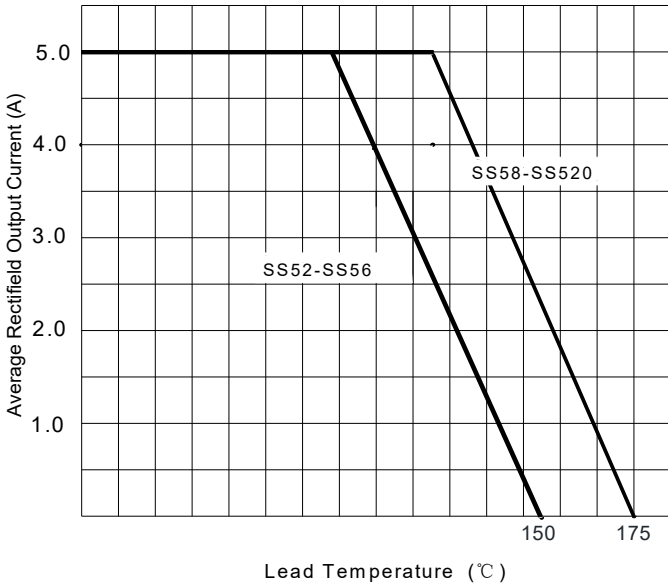


FIG2: Surge Forward Current Capability

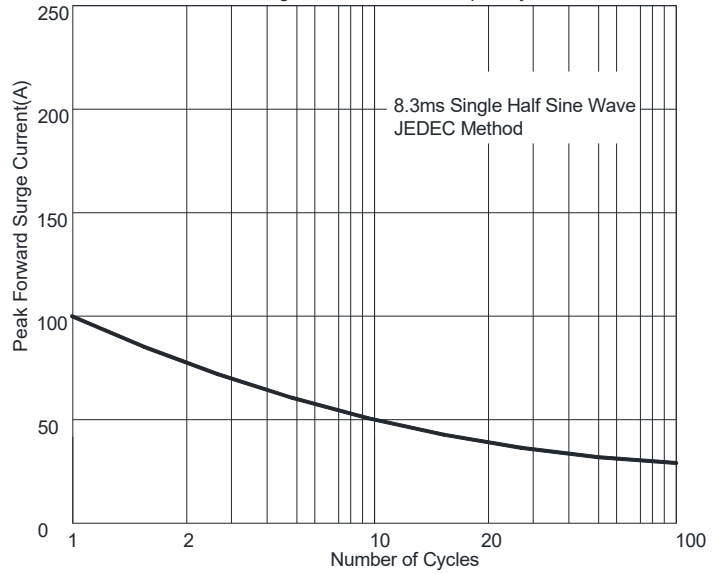


FIG3: TYPICAL FORWARD CHARACTERISTICS

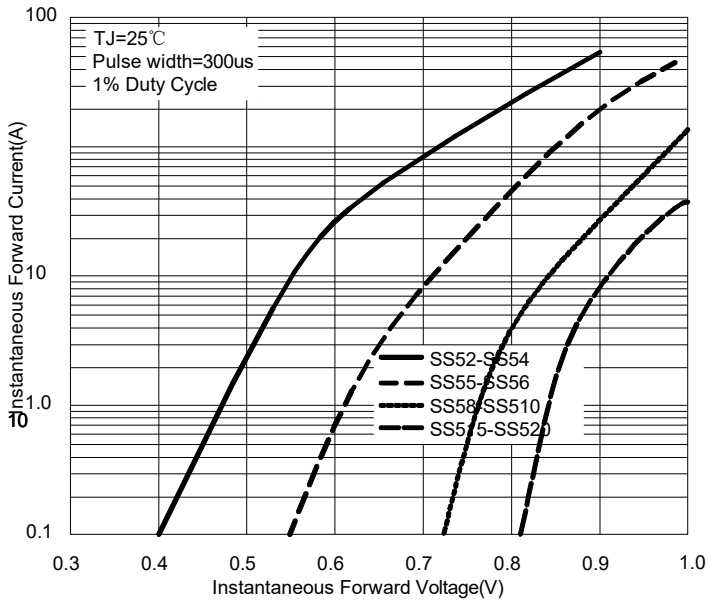
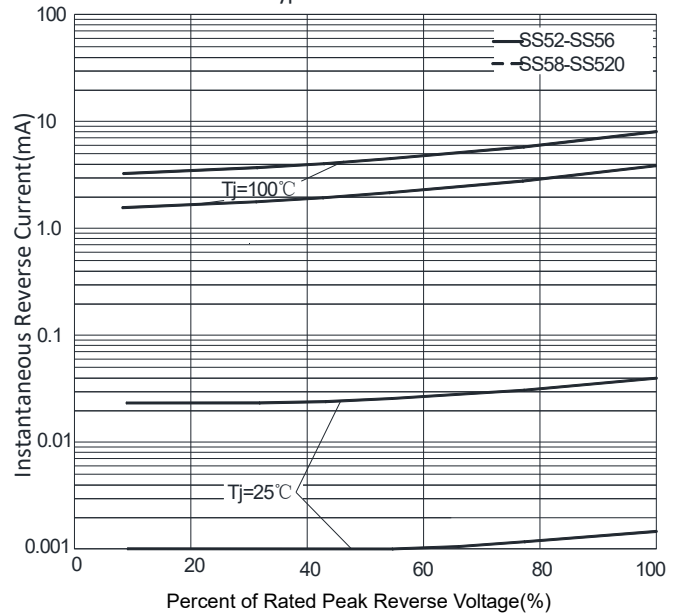


FIG4: Typical Reverse Characteristics



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