

Surface Mount Schottky Rectifier

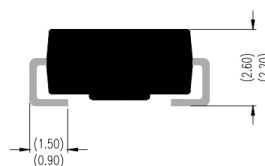
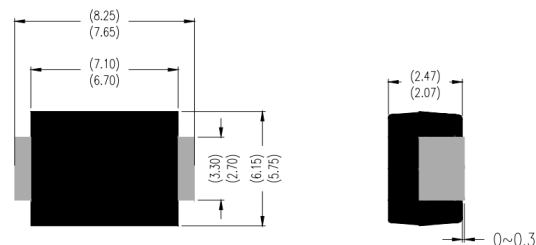
Features

- Low profile package
- Ideal for automated placement
- Guardring for overvoltage protection
- Low power losses, high efficiency
- High forward surge capability
- Compliant with RoHS standards, halogen-free

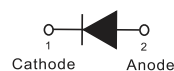
Mechanical Data

- **Package:** SMC/DO-214AB
- **Terminals:** Tin plated leads, solderable per
- **Polarity:** Color band denotes the cathode end

SMC/DO-214AB



Unit : inch(mm)



Maximum Ratings ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	SS52C	SS54C	SS56C	SS510C	SS515C	SS520C
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, $T_a=25^\circ\text{C}$	I_{FSM}	A	100					
Storage Temperature	T_{stg}	$^\circ\text{C}$	-55 ~ +150					
Junction Temperature	T_j	$^\circ\text{C}$	-55 ~ +150			-55 ~ +175		

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Unit	Test Conditions	SS52C	SS54C	SS56C	SS510C	SS515C	SS520C
Maximum instantaneous forward voltage drop per diode	V _F	V	I _{FM} =5.0A	0.55	0.55	0.70	0.85	0.95	
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	

Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter		Symbol	Unit	SS52C	SS53C	SS54C	SS55C	SS56C	SS58C	SS510C	SS515C	SS520C
Thermal Resistance	Junction to ambient	$R_{\theta J-A}$	$^\circ\text{C/W}$	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

Characteristics (Typical)

FIG.1: I_o - T_a Curve

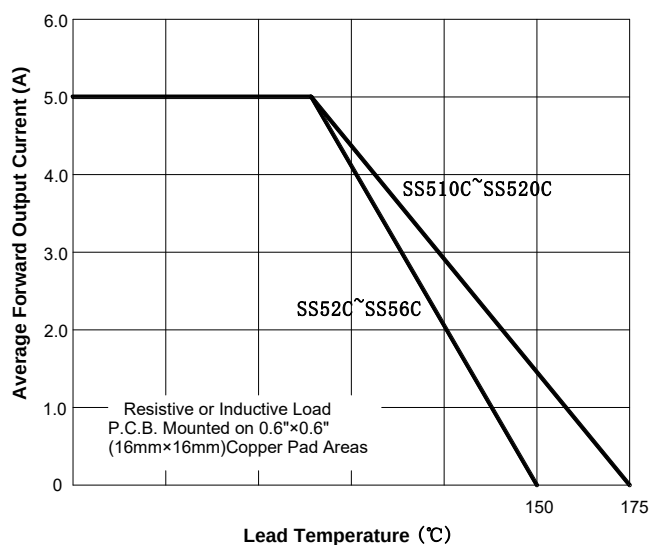


FIG.2: Forward Surge Current Capability

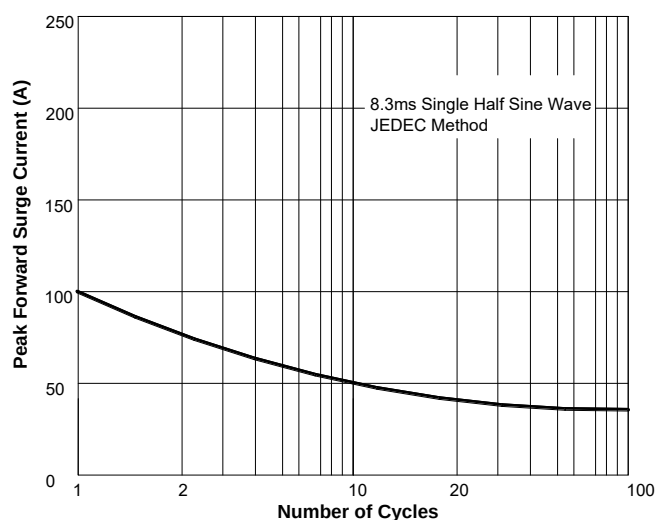


FIG.3: Forward Voltage

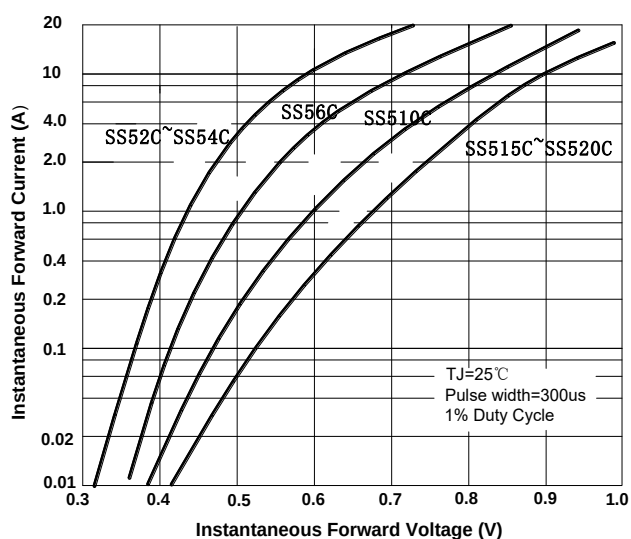


FIG.4: Typical Reverse Characteristics

