



## 95SQ015 SCHOTTKY RECTIFIER

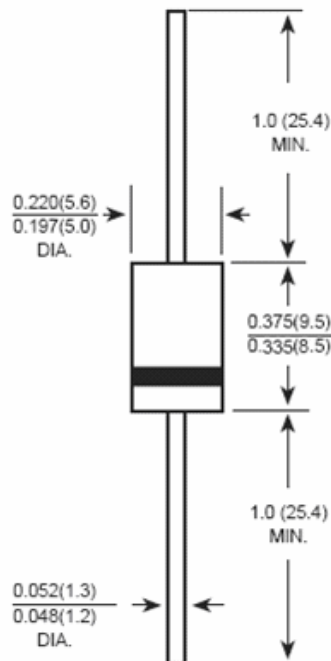
### Applications:

- Parallel switching power supply
- Converters
- Redundant power subsystems
- Reverse battery protection

### Features:

- 125 °C T<sub>J</sub> operation (V<sub>R</sub><5V)
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Optimized for OR-ing applications
- Ultra low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

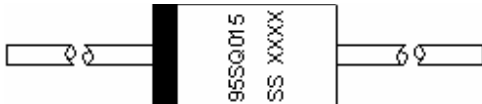
### Mechanical Dimensions: In Inches / mm



**DO-201AD**



**Marking Diagram:**



Where XXXXX is YYWWL

95SQ015 = Part Name  
SSG = SSG  
YY = Year  
WW = Week  
L = Lot Number

**Cautions:** Molding resin  
Epoxy resin UL:94V-0

**Ordering Information:**

Device	Package	Shipping
95SQ015	DO-201AD (Pb-Free)	1250pcs / tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

**Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	$V_{RWM}$	-	15 (DC) 25 (Working)	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C = 55^\circ C$ , rectangular wave form	9	A
Max. Peak One Cycle Non-Repetitive Surge Current (per leg)	$I_{FSM}$	8.3 ms, half Sine pulse	480	A
Non-Repetitive Avalanche Energy (per leg)	$E_{AS}$	$T_J = 25^\circ C$ , $I_{AS} = 1 A$ , $L = 9.0 mH$	4.5	mJ
Repetitive Avalanche Current (per leg)	$I_{AR}$	Current decaying linearly to zero in 1 $\mu sec$ Frequency limited by $T_J$ max. $V_A = 3 \times V_R$ typical	1	A



**Electrical Characteristics:**

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	$V_{F1}$	@ 9 A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.34	V
		@ 18 A, Pulse, $T_J = 25\text{ }^\circ\text{C}$	0.37	
	$V_{F2}$	@ 9 A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.25	V
		@ 18 A, Pulse, $T_J = 125\text{ }^\circ\text{C}$	0.31	
Max. Reverse Current	$I_{R1}$	@ $V_R = \text{rated } V_R, T_J = 25\text{ }^\circ\text{C}$	7.0	mA
	$I_{R2}$	@ $V_R = \text{rated } V_R, T_J = 100\text{ }^\circ\text{C}$	348	mA
	$I_{R3}$	@ $V_R = 12\text{ V}, T_J = 100\text{ }^\circ\text{C}$	310	mA
	$I_{R4}$	@ $V_R = 5\text{ V}, T_J = 100\text{ }^\circ\text{C}$	190	mA
Typical Junction Capacitance	$C_T$	@ $V_R = 5.0\text{ V}, T_c = 25\text{ }^\circ\text{C}$ $f_{SIG} = 1\text{ MHz}$	1300	pF
Typical Series Inductance (per leg)	$L_S$	Measured lead to lead 5 mm from package body	8.0	nH
Max. Voltage Rate of Change	dv/dt	-	10,000	V/ $\mu\text{s}$

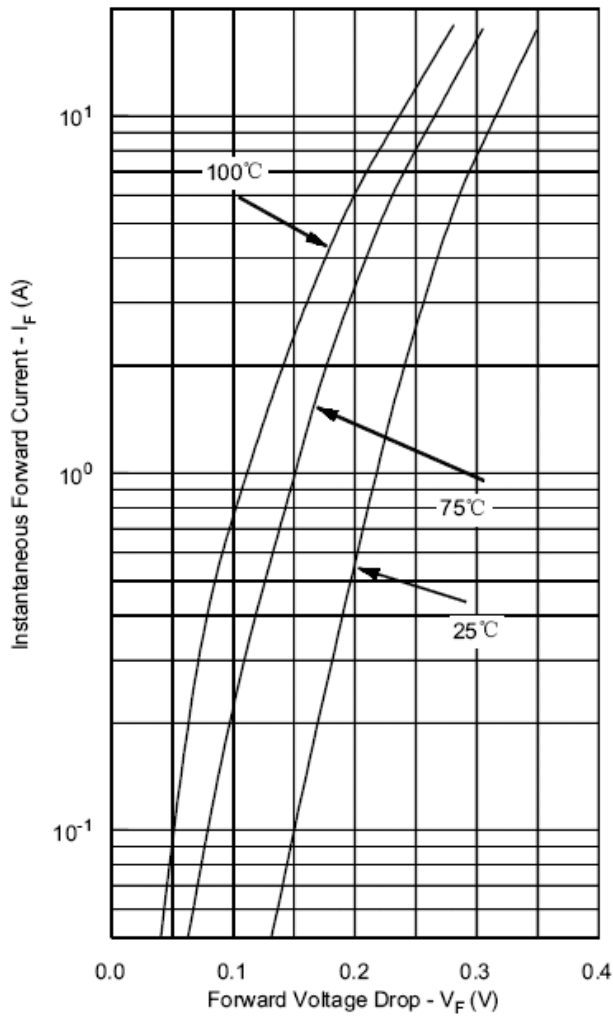
\* Pulse Width < 300 $\mu\text{s}$ , Duty Cycle < 2%

**Thermal-Mechanical Specifications:**

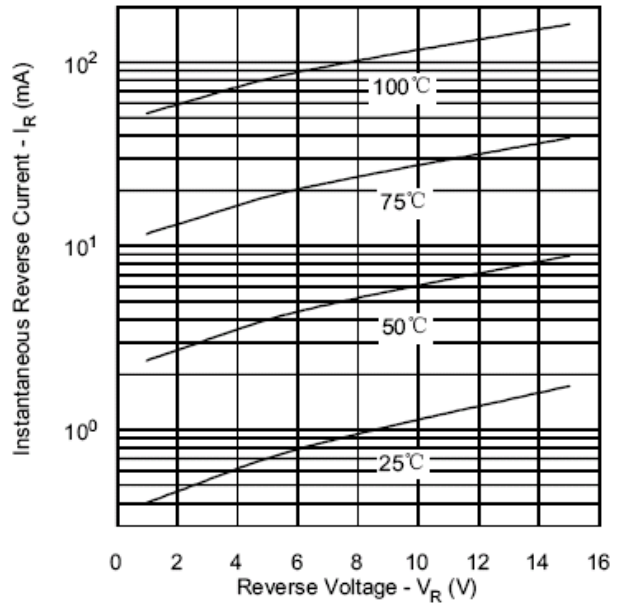
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	$T_J$	-	-55 to +125	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-	-55 to +150	$^\circ\text{C}$
Maximum Thermal Resistance, Case to Heat Sink	$R_{\theta JA}$	-	44	$^\circ\text{C/W}$
Maximum Thermal Resistance, Junction to lead	$R_{\theta JL}$	-	8	$^\circ\text{C/W}$
Approximate Weight	wt	-	1.02	g
Case Style	DO-201AD			



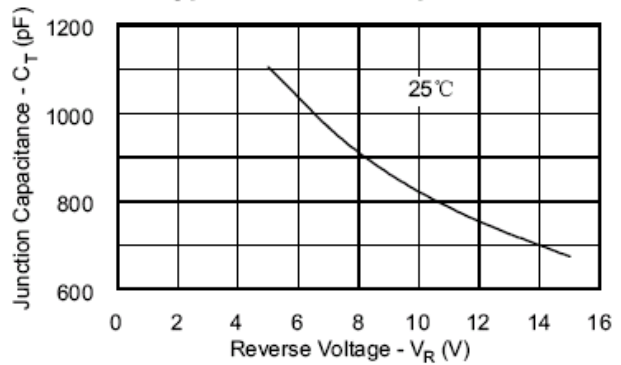
**Typical Forward Characteristics**



**Typical Reverse Characteristics**



**Typical Junction Capacitance**





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