

## SL53 SCHOTTKY RECTIFIER

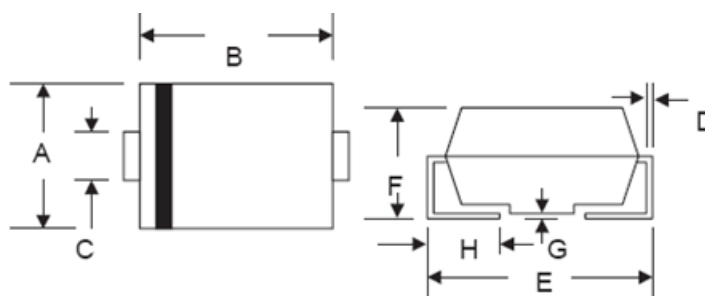
### Applications:

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

### Features:

- Small foot print, surface mountable
- Very low forward Voltage Drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- Green Products in Compliance the ROHS Directive
- 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 mm)

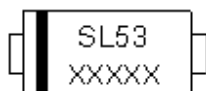


SMC/DO-214AB				
Dim	Min	Max	Min	Max
A	5.59	6.22	0.220	0.245
B	6.60	7.11	0.260	0.280
C	2.75	3.25	0.108	0.128
D	0.152	0.305	0.006	0.012
E	7.75	8.13	0.305	0.320
F	2.00	2.62	0.079	0.103
G	0.051	0.203	0.002	0.008
H	0.76	1.27	0.030	0.05
	In mm		In inch	

**SMC**

**Marking Diagram:**

Where XXXXX is YYWWL



SL53	= Part Name
YY	= Year
WW	= Week
L	= Lot Number

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

**Ordering Information**

Device	Package	Shipping
SL53	SMC (Pb-Free)	3000pcs / reel

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	$V_{RWM}$	-	30	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_L=113^{\circ}C$ , rectangular wave form	5	A
Peak One Cycle Non-Repetitive Surge Current	$I_{FSM}$	8.3ms, half sine pulse	175	A

**Electrical Characteristics:**

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V <sub>F1</sub>	@ 5 A, Pulse, T <sub>J</sub> = 25 °C	0.42	0.45	V
	V <sub>F2</sub>	@ 5 A, Pulse, T <sub>J</sub> = 125 °C	0.33	0.38	V
Reverse Current*	I <sub>R1</sub>	@V <sub>R</sub> = rated V <sub>R</sub> T <sub>J</sub> = 25 °C	-	0.7	mA
	I <sub>R2</sub>	@V <sub>R</sub> = rated V <sub>R</sub> T <sub>J</sub> = 125 °C	45	65	mA
Voltage Rate of Change	dv/dt	-	-	10,000	V/μs

\* Pulse Width < 300μs, Duty Cycle <2%

**Thermal-Mechanical Specifications:**

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T <sub>J</sub>	-	-65 to +125	°C
Storage Temperature	T <sub>stg</sub>	-	-65 to +150	°C
Typical Thermal Resistance Junction to Lead	R <sub>θJL</sub>	DC operation	20	°C/W
Typical Thermal Resistance, Junction to Ambient	R <sub>θJA</sub>	-	60	°C/W
Approximate Weight	wt	-	0.65	g
Case Style	SMC			

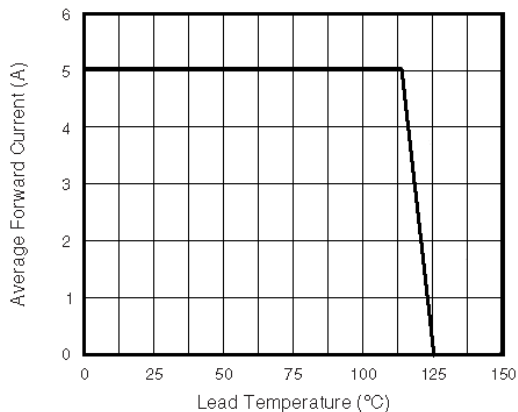


Fig. 1 - Forward Current Derating Curve

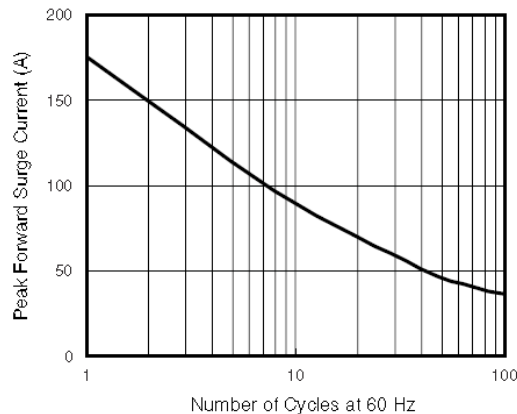


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

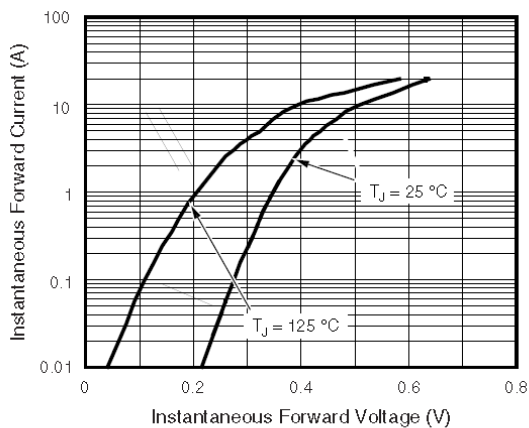


Fig. 3 - Typical Instantaneous Forward Characteristics

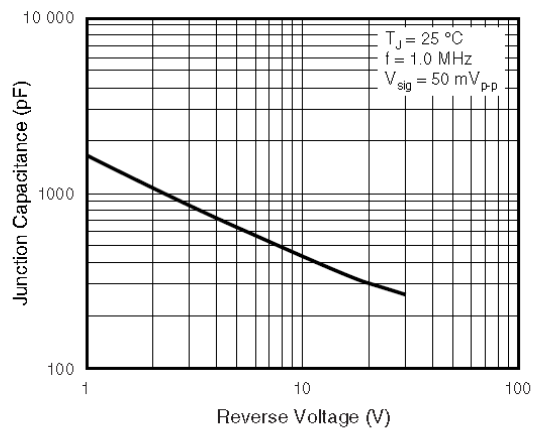


Fig. 5 - Typical Junction Capacitance

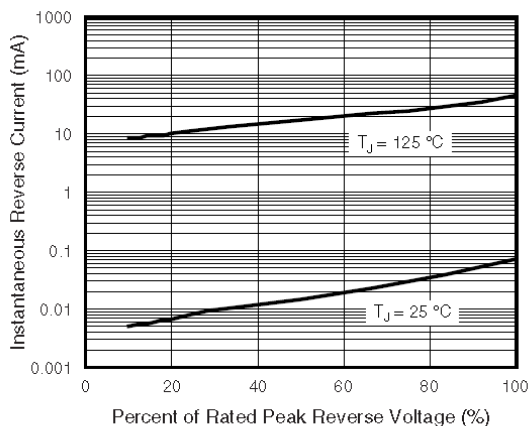


Fig. 4 - Typical Reverse Characteristics

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