Technical Data
Data Sheet N1250, Rev. A

Green Products

20SQ045L SCHOTTKY BARRIER RECTIFIER

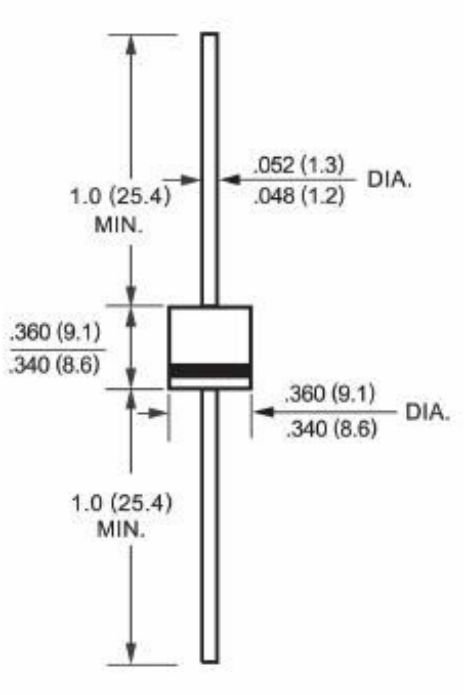
Applications：

- DC-DC converters
- AC adapter
- High frequency rectification circuit
- Bypass diodes
- Photovoltaic Solar cell Protection Schottky Rectifier

Features:

- Super-high speed & low noise switching
- Low voltage drop
- 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



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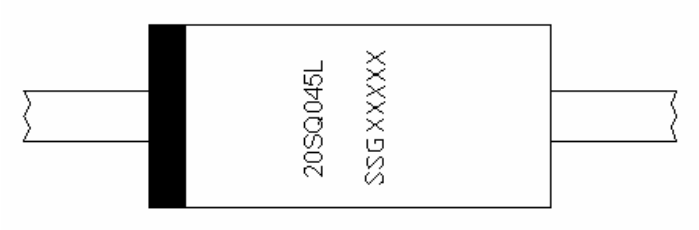
Marking Diagram:



Where XXXXX is YYWWL

20	= Forward Current (20A)
S	= Package Type
Q	= Device Type
045	= Reverse Voltage (45V)
L	= Low VF
SSG	= SSG
YY	= Year
WW	= Week
L	= Lot Number

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

Ordering Information:

Device	Package	Shipping
20SQ045L	R-6 (Pb-Free)	500pcs / reel

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

Maximum Rating:

Characteristics	Symbol	Conditions	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	-	45	V
Max. average forward current	$I_{F(AV)}$	R- load, Ta=25℃	20	A
Surge(Non-repetitive) Forward Current	I_{FSM}	8.3ms single half sine-wave	350	A

Electrical Characteristics（Ta=25℃ Unless otherwise specified）

Characteristics	Symbol	Conditions		Max.	Unit
Peak Forward Voltage	V_{FM}	I_{FM}=20.0A,Ta=25℃		0.50	V
Peak Forward Voltage	V_{FM}	I_{FM}=20.0A,Ta=125℃		0.45	V
Peak Reverse Current	I_{RRM1}	V_{RM}=V_{RRM}	Ta=25℃	1.0	mA
	I_{RRM2}		Ta=125℃	200	
Max. Junction Capacitance (per leg)	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz		1300	pF
Thermal Resistance(Typical)	$R_{\theta J-c}$	Between junction and case		3.0	℃/W
	$R_{\theta J-L}$	Between junction and lead		2.0	

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	At reduced reverse voltage: $V_R \leqslant 80\% V_{RRM}$	-55 to +125	°C
		At reduced reverse voltage: $V_R \leqslant 50\% V_{RRM}$	-55 to +180	
		In DC forward mode	-55 to +200	
Storage Temperature	T_{stg}	-	-55 to +125	°C
Approximate Weight	wt	-	2.24	g
Case Style	R-6			

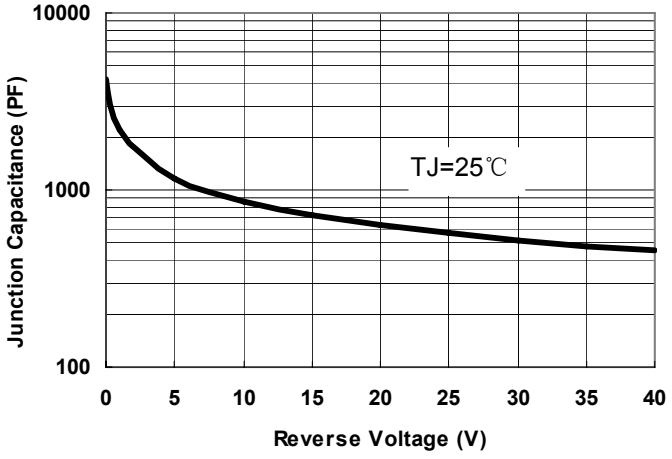


Fig.1-Typical Junction Capacitance

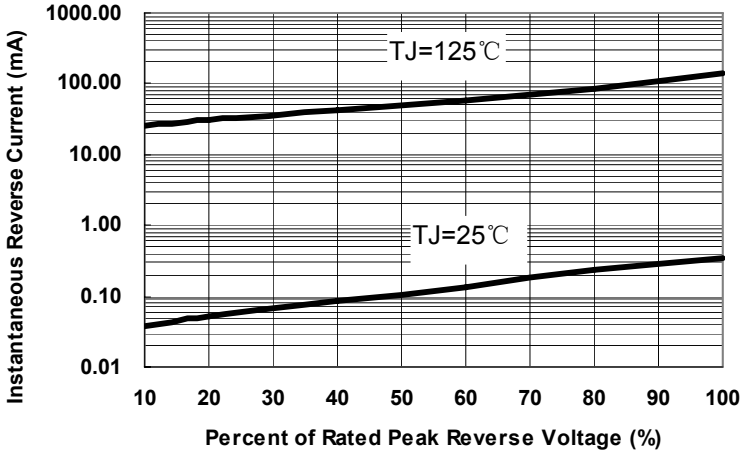


Fig.2-Typical Reverse Characteristics

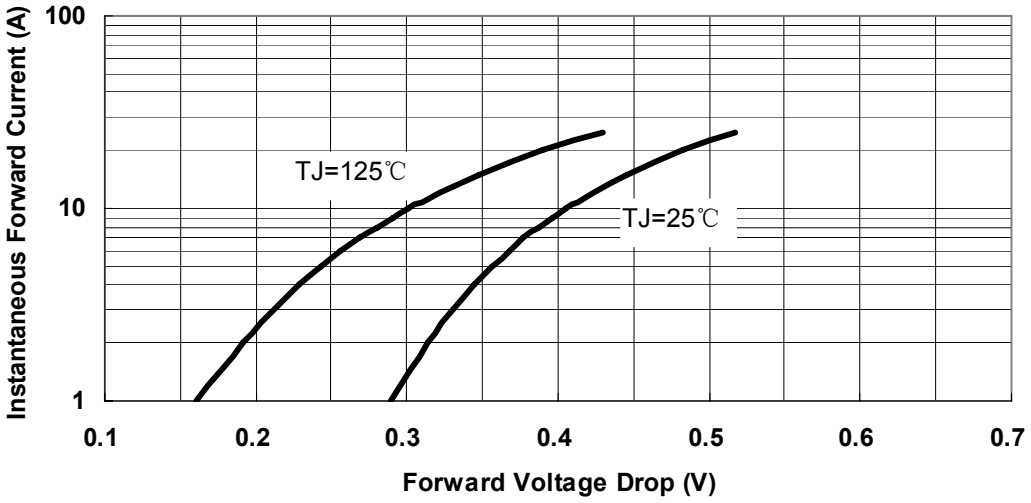


Fig.3-Typical Instantaneous Forward Voltage Characteristics

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