

20SQ045-S SCHOTTKY BARRIER RECTIFIER

Applications:

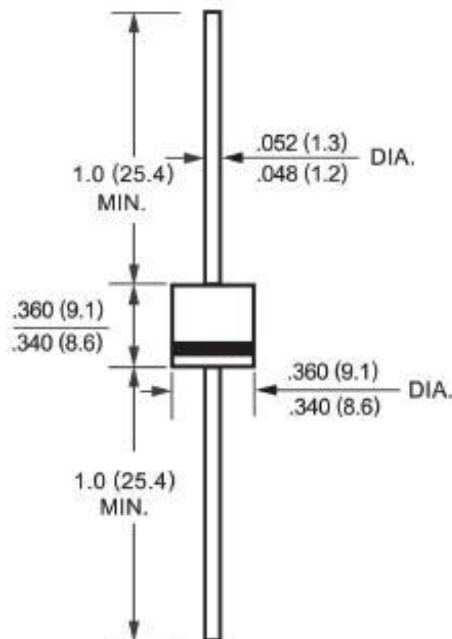
- DC-DC converters
- AC adapter
- High frequency rectification circuit
- Bypass diodes
- Photovoltaic Solar cell Protection Schottky Rectifier

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



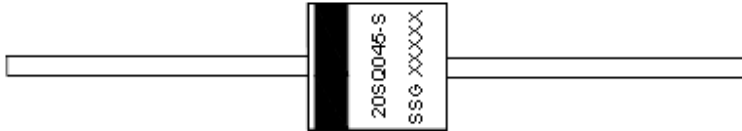
Mechanical Dimensions: In Inches/ mm



R-6

Marking Diagram:

Where XXXXX is YYWWL



20SQ045-S = Part Name
 SSG = SSG
 YY = Year
 WW = Week
 L = Lot Number

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

Ordering Information:

Device	Package	Shipping
20SQ045-S	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
Peak Repetitive Reverse Voltage	V_{RRM}	-	45	V
Working Peak Reverse Voltage	V_{RWM}			
DC Blocking Voltage	V_R			
Average Rectified Forward Current	$I_{F(AV)}$	R- load, $T_a=25^\circ C$	20	A
Surge(Non-repetitive) Forward Current	I_{FSM}	8.3ms single half sine-wave	350	A

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

Characteristics	Symbol	Conditions	Typ.	Max.	Unit
Peak Forward Voltage	V _{FM}	I _{FM} =20.0A, Ta=25°C	0.46	0.55	V
Peak Reverse Current	I _{RRM1}	V _{RM} =V _{RRM}	Ta=25°C	0.15	mA
	I _{RRM2}		Ta=100°C	20	
Thermal Resistance	R _{θJ-c}	Between junction and case	2.2	-	°C/W
	R _{θJ-A}	Between junction and Ambient	45	-	
	R _{θJ-L}	Between junction and lead	2.0	-	

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature at reduced reverse voltage at reduced reverse voltage in DC forward mode	T _J	V _R ≤ 80%V _{RRM} V _R ≤ 50%V _{RRM}	-55 to +150 -55 to +180 -55 to +200	°C
Storage Temperature	T _{stg}	-	-55 to +150	°C
Approximate Weight	wt	-	2.24	g
Case Style	R-6			

Figure 1
Typical Forward Characteristics

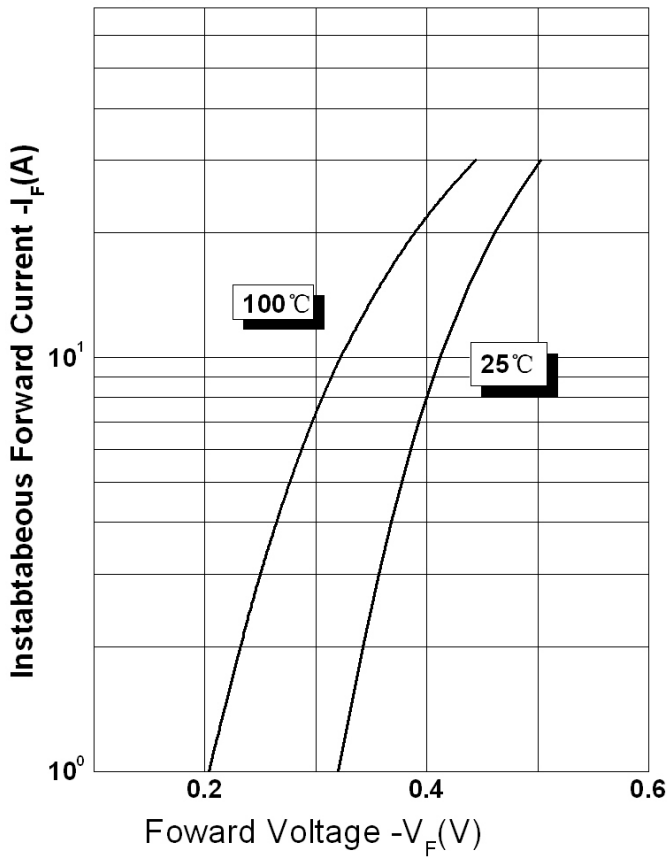


Figure 2
Typical Reverse Characteristics

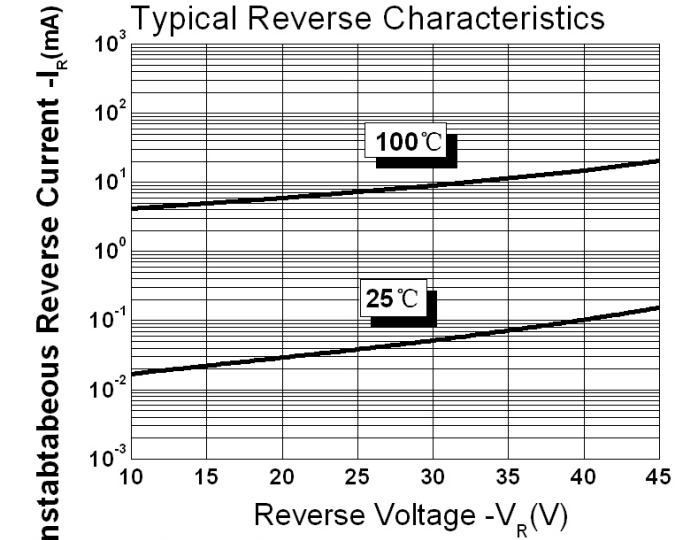
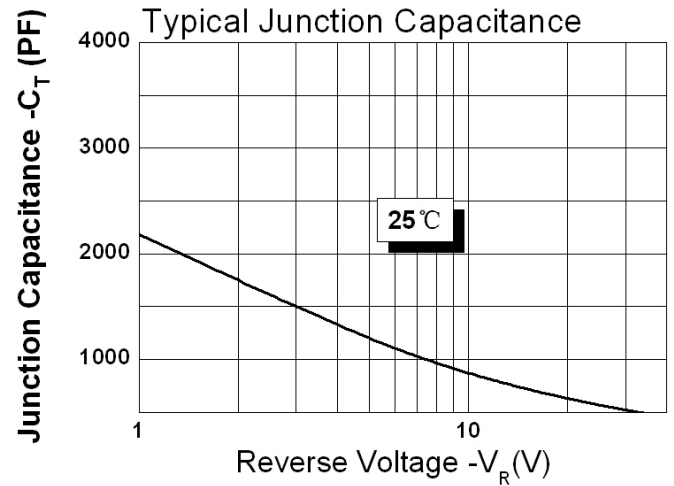


Figure 3
Typical Junction Capacitance





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