Technical Data
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Green Products

8SQ045 SCHOTTKY BARRIER RECTIFIER

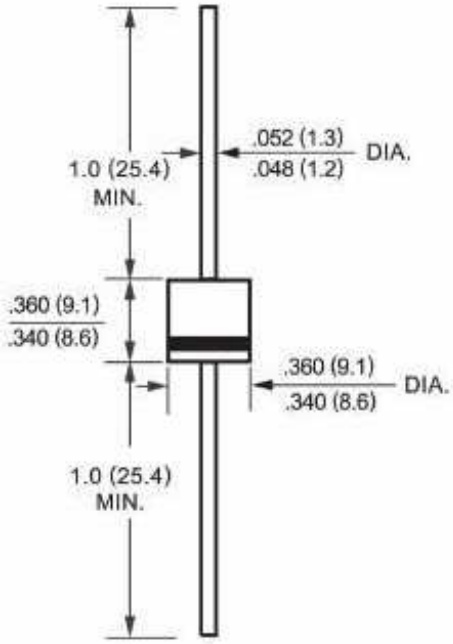
Applications：

- DC-DC converters
- AC adapter
- High frequency rectification circuit
- Bypass diodes

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

8	= Forward Current (8A)
S	= Package Type
Q	= Device Type
045	= Reverse Voltage (45V)
SSG	= SSG
YY	= Year
WW	= Week
L	= Lot Number

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

Ordering Information:

Device	Package	Shipping
8SQ045	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 Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Inverse Voltage	V_{RWM}	-	45	V
Max. Average Forward Current	$I_{F(AV)}$	50% duty cycle @T_L= 119℃, rectangular wave form	8	A
Max. Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	Surge applied at rated load conditions half sine wave, 8.3ms	200	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Max. Forward Voltage Drop	V_{F1}	@ 8 A, Pulse, T_J = 25 °C	0.53	V
	V_{F2}	@ 8 A, Pulse, T_J = 125 °C	0.44	V
Max. Reverse Current	I_{R1}	@V_R = rated V_R T_J = 25 °C	1.0	mA
	I_{R2}	@V_R = rated V_R T_J = 125 °C	60.0	mA
Max. Junction Capacitance (per leg)	C_T	@V_R = 5V, T_C = 25 °C f_{SIG} = 1MHz	900	pF

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature -1	T_J	-	-55 to +150	°C
Storage Temperature Range	T_{stg}	-	-55 to +150	°C
Maximum Thermal Resistance, Case to Heat Sink	$R_{\theta JA}$	-	18	°C/W
Maximum Thermal Resistance, Junction to lead	$R_{\theta JL}$	-	8	°C/W
Case Style	R-6			

* This rating is limited to the use for bypass diodes and the condition where the reverse bias voltage is not applied.

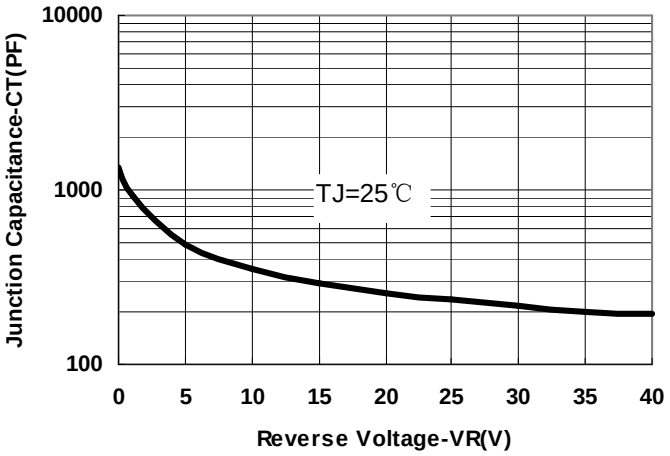

Fig.1-Typical Junction Capacitance Vs.Reverse Voltage

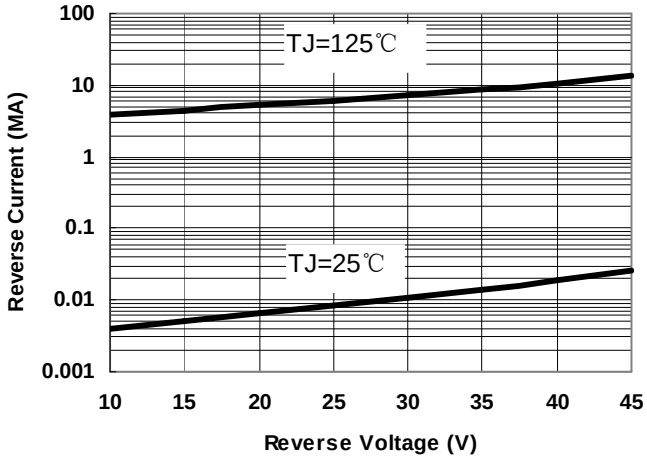

Fig.2-Typical Values Of Reverse Current VS.Reverse Voltage

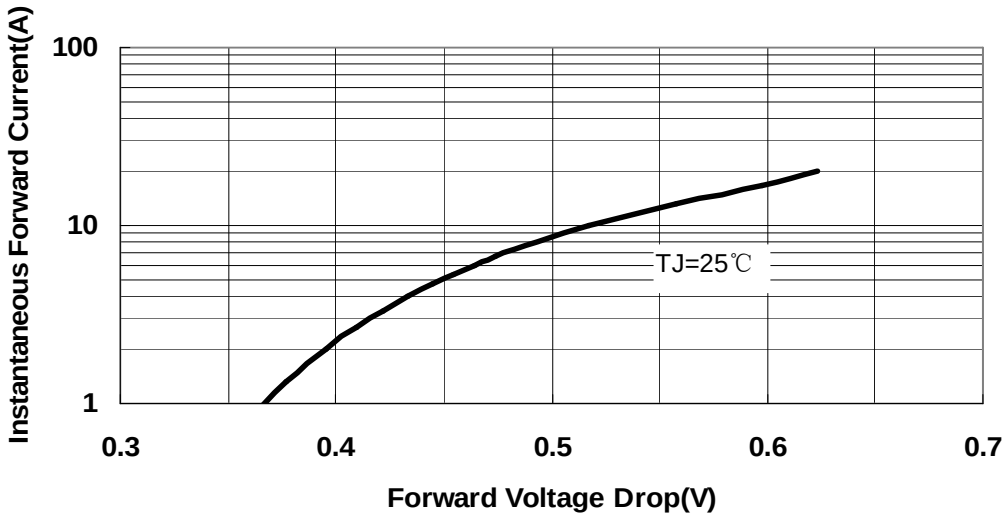

Fig.3-Typical Instantaneous Forward Voltage Characteristics

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