

Green Products

10SQ050 SCHOTTKY BARRIER RECTIFIER

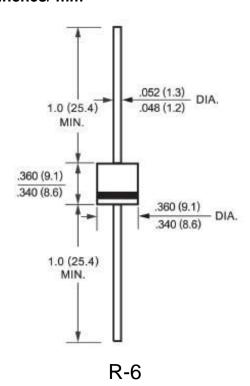
Applications:

- 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

10 = Forward Current (10A)

S = Package Type Q = Device Type

050 = Reverse Voltage (50V)

SSG = SSG YY = Year WW = Week L = Lot Number

Cautions: Molding resin

Epoxy resin UL:94V-0

Ordering Information:

Device	Package	Shipping
10SQ050	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 Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	$egin{array}{c} V_{RRM} \ V_{RWM} \ V_{R} \end{array}$	-	50	V
Average Rectified Forward Current	I _{F (AV)}	50% duty cycle @T _L = 75°C, rectangular wave form	10	А
Peak One Cycle Non-Repetitive Surge Current	I _{FSM}	8.3 ms, half Sine pulse	150	Α

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Electrical Characteristics:

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop*	V _{F1}	@ 10 A, Pulse, T _J = 25 °C	0.53	0.55	V
	V_{F2}	@ 10 A, Pulse, T _J = 125 °C	0.47	0.50	V
Reverse Current*	I _{R1}	$@V_R = \text{rated } V_R$ $T_J = 25 ^{\circ}\text{C}$	0.04	1.0	mA
	I _{R2}	$@V_R = \text{rated } V_R$ $T_J = 125 ^{\circ}\text{C}$	25	60	mA

^{*} Pulse Width < 300µs, Duty Cycle <2%

Thermal-Mechanical Specifications:

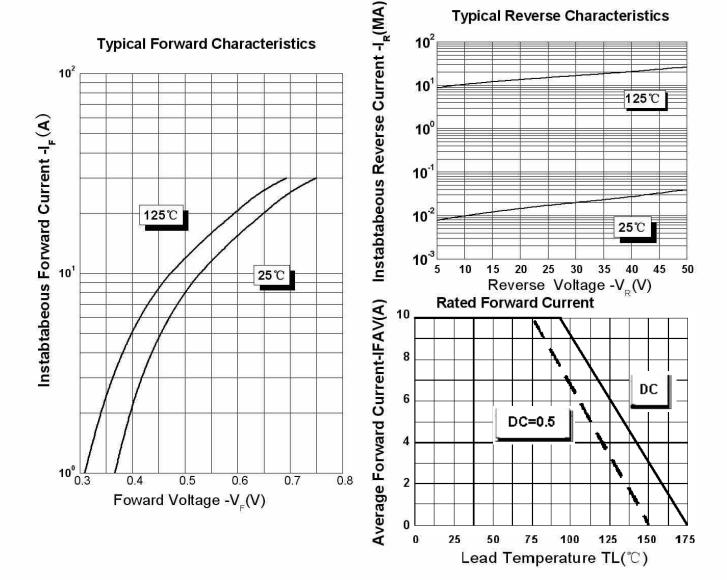
Characteristics	Symbol	Condition	Specification	Units		
Junction Temperature -1	т		-55 to +150	°C		
Junction Temperature -2*	T_{J}	-	-55 to +175	-0		
Storage Temperature Range	T _{stg}	-	-55 to +175	°C		
Typical Thermal Resistance Junction to ambient	$R_{\theta JA}$	-	18	°C/W		
Typical Thermal Resistance, Junction to lead	$R_{ hetaJL}$	-	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.

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