

SCHOTTKY RECTIFIER

1.5 Amp

Major Ratings and Characteristics

Characteristics	15MQ040	Units
$I_{F(AV)}$ @ 180° Rectangular	1.7	A
	@ 180° Sinusoidal	1.5
V_{RWM}	40	V
I_{FSM} @ 50Hz	60	A
V_F @ 60Hz	64	V
T_J range	-40 to 125	°C

Description/Features

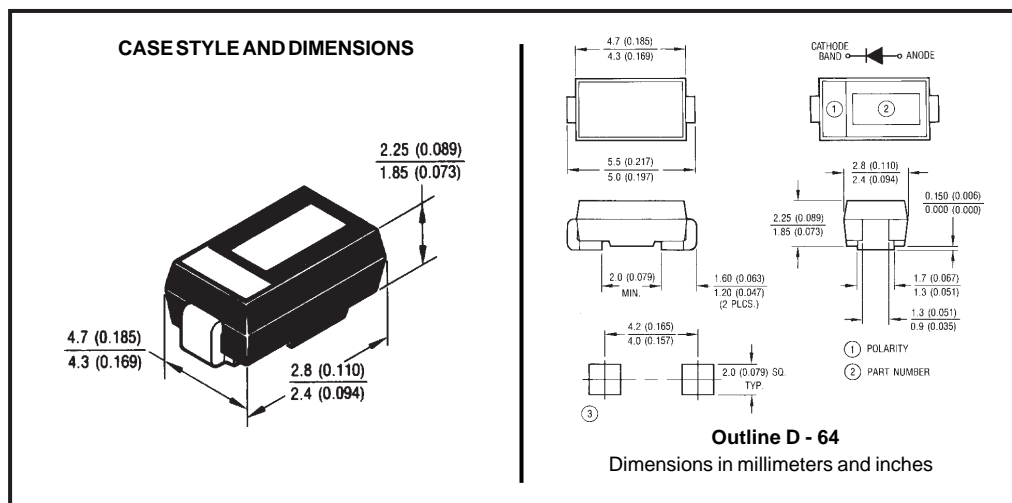
The 15MQ040 is a 1.5A Schottky rectifier and is designed to be used for low-power applications where a reverse voltage of 40 volts is encountered and surface mounting is required.

Applications

- Switching power supplies
- Meter protection
- Reverse protection for power input to PC board circuits
- Battery isolation and charging
- Low threshold voltage diode
- Free-wheeling or by-pass diode
- Low voltage clamp

Features

- Surface mountable
- Extremely low forward voltage
- Improved reverse blocking voltage capability relative to other Schottkys of similar size
- Compact size



Voltage Ratings

Part number	15MQ040
V_R Max. DC Reverse Voltage (V)	40
V_{RWM} Max. Working Peak Reverse Voltage (V)	

Electrical Specifications

Parameters	15MQ	Units	Conditions
$I_{F(AV)}$ Max. Average Output Current	1.7	A	180° conduction, rectangular waveform
	1.5	A	180° conduction, sinusoidal waveform
I_{FSM} Max. Peak One Cycle Non-Repetitive Surge Current	60	A	50Hz half cycle sine wave or 6ms rectangular pulse
	64	A	60Hz half cycle sine wave or 5ms rectangular pulse
V_{FM} Max. Peak Forward Voltage	0.55	V	$T_J = 25^\circ\text{C}$ at rated $I_{F(AV)}$
I_R Max. dc Reverse Current	5.0	mA	$T_J = 25^\circ\text{C}$ $V_R = \text{rated } V_R$
I_{RM} Max. Peak Reverse Current	50	mA	$T_C = 125^\circ\text{C}$ $V_R = \text{rated } V_R$
C_T Typical Junction Capacitance	70	pF	$T_C = 25^\circ\text{C}$ $V_R = 10V_{DC}$ 1Mhz test signal

Thermal-Mechanical Specifications

Parameters	15MQ	Units	Conditions
T_J Max. Operating Junction Temperature	-40 to 125	°C	
T_{stg} Max. Storage Temperature Range	-40 to 125	°C	
R_{thJA} Max. Thermal Resistance Junction to Ambient	150	°C/W	
wt Approximate Weight	0.07(0.026)	g(oz.)	
Case Style	D-64		