



**THE DATASHEET OF
30BQ060TR**



30BQ060 SCHOTTKY RECTIFIER

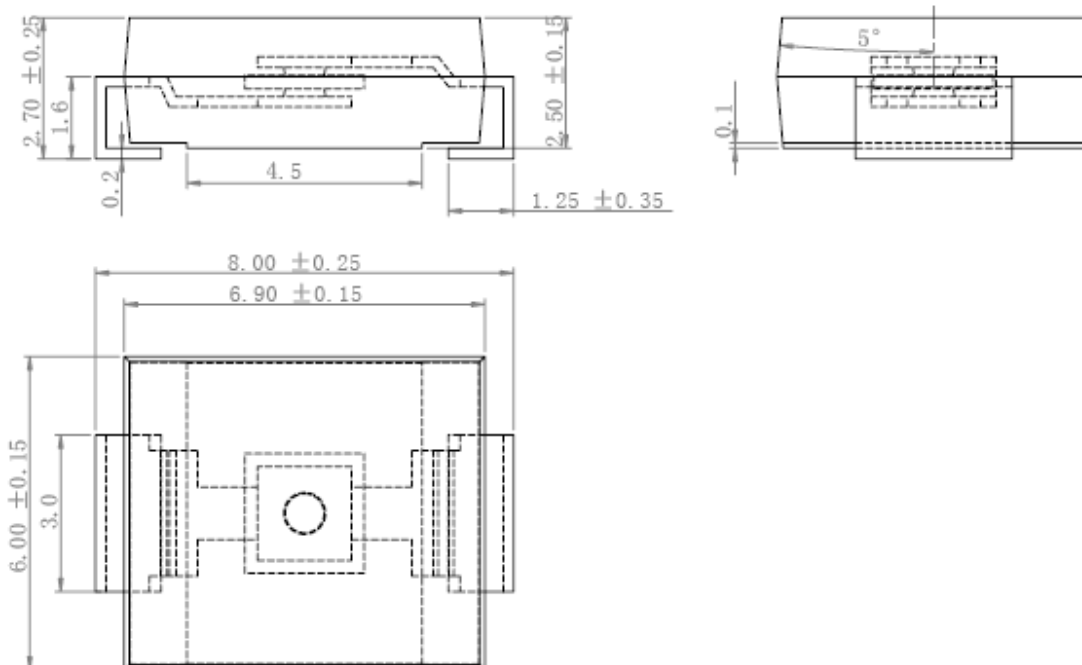
Applications:

- Disk Drives
- Switching power supply
- Redundant power subsystems
- Converters
- Free-Wheeling diodes
- Reverse battery protection
- Battery Charging

Features:

- Small foot print, surface mountable
- Low forward voltage drop
- High frequency operation
- Guard ring for enhanced ruggedness and long term reliability
- 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 mm / Inches):



SMC

Marking Diagram:



Where XXXXX is YYWWL

SC3H = Part Name
YY = Year
WW = Week
L = Lot Number

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

Ordering Information:

Device	Package	Shipping
30BQ060	SMC (Pb-Free)	3000pcs / 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	V_{RRM} V_{RWM} V_R	-	60	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C=123^\circ\text{C}$, rectangular wave form	3.0	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3 ms, half Sine pulse	156	A

Electrical Characteristics:

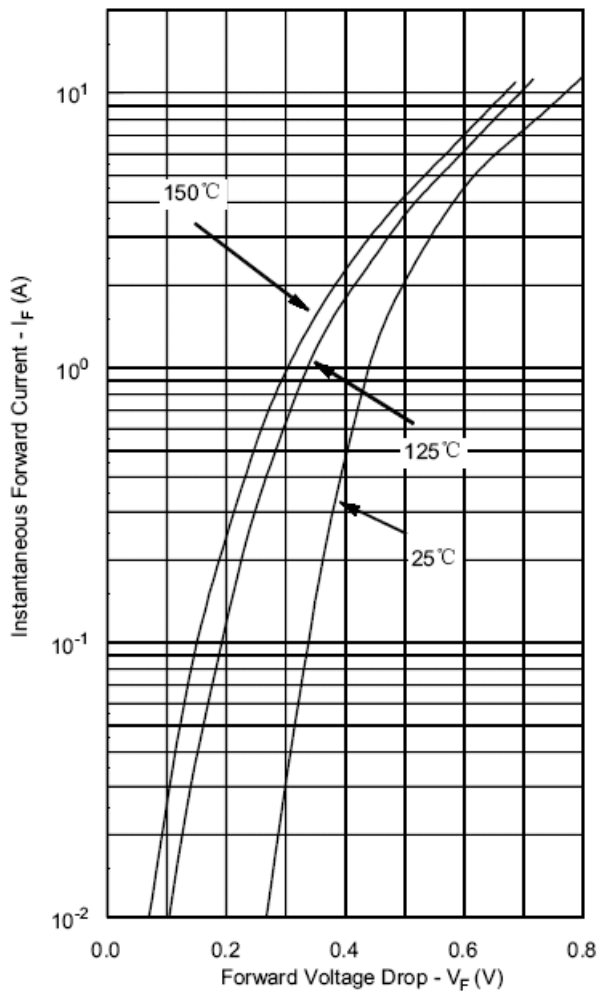
Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V _{F1}	@ 3 A, Pulse, T _J = 25 °C @ 6 A, Pulse, T _J = 25 °C	0.58 0.76	V
	V _{F2}	@ 3 A, Pulse, T _J = 125 °C @ 6 A, Pulse, T _J = 125 °C	0.52 0.66	V
Reverse Current *	I _{R1}	@V _R = Rated V _R , Pulse, T _J = 25 °C	0.5	mA
	I _{R2}	@V _R = Rated V _R , Pulse, T _J = 125 °C	20	mA
Junction Capacitance	C _T	@V _R = 5V, T _C = 25 °C f _{SIG} = 1MHz	180	PF
Typical Series Inductance	L _S	Measured lead to lead 5 mm from package body	3.0	nH
Voltage Rate of Change	dv/dt	-	10,000	V/μs

* Pulse Width < 300μs, Duty Cycle < 2%

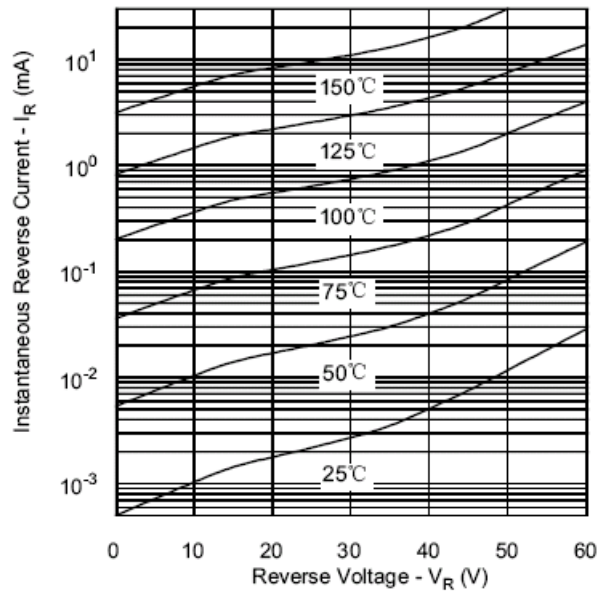
Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T _J	-	-55 to +150	°C
Storage Temperature	T _{stg}	-	-55 to +150	°C
Typical Thermal Resistance Junction to Lead	R _{θJL}	DC operation	12	°C/W
Typical Thermal Resistance Junction to Case	R _{θJA}	DC operation	46	°C/W
Approximate Weight	wt	-	0.65	g
Case Style	SMC			

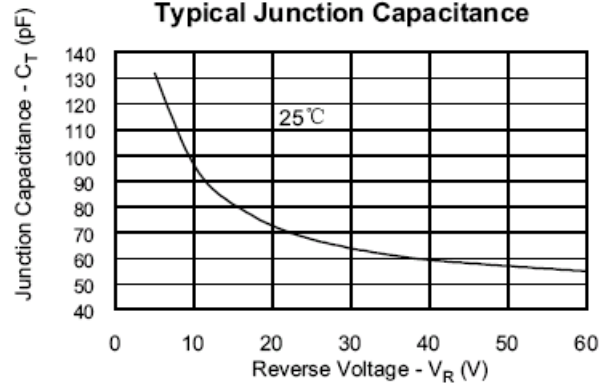
Typical Forward Characteristics



Typical Reverse Characteristics



Typical Junction Capacitance





30BQ060

Technical Data
Data Sheet N0675, Rev. -



Green Products

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