

5-Ampere, 20-200 Voltage Schottky Barrier Metal-Silicon Rectifiers

■ Features

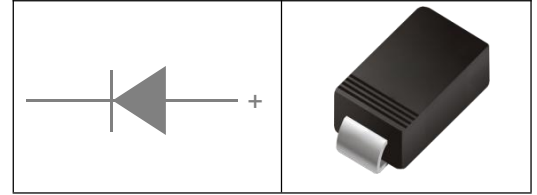
- Metal silicon junction
- Low power loss and high efficiency
- Super fast reverse recovery time
- High surge current capability
- The plastic case material has UL flammability classification rating 94V-0

■ Mechanical Data

- Package: SMA
- Polarity: As marked
- Lead free complies with the EU ROHS directive
- Terminals: Tin plated leads, solderable per Mil-STD-750 Method 2026



Key Parameters		
Parameter	Value	Unit
I_F	5	A
V_{RRM}	20~200	V
I_{FSM}	100	A
Package	SMA	



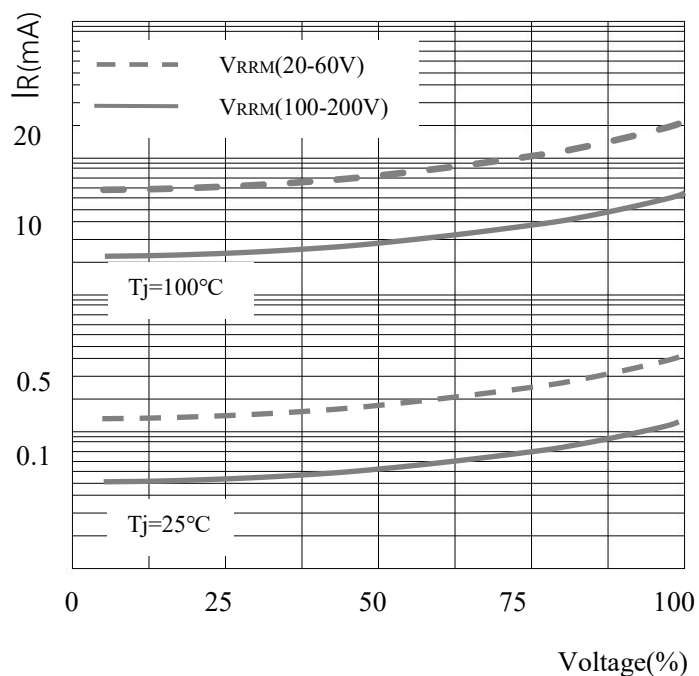
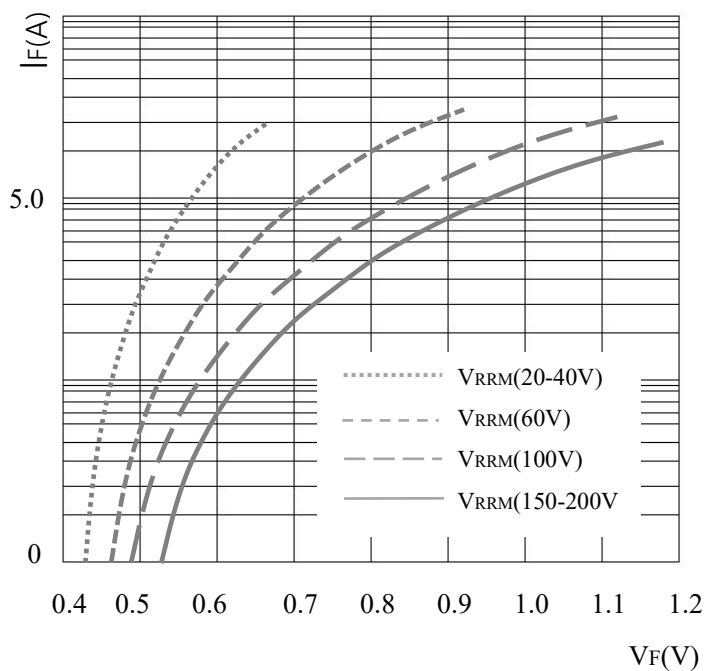
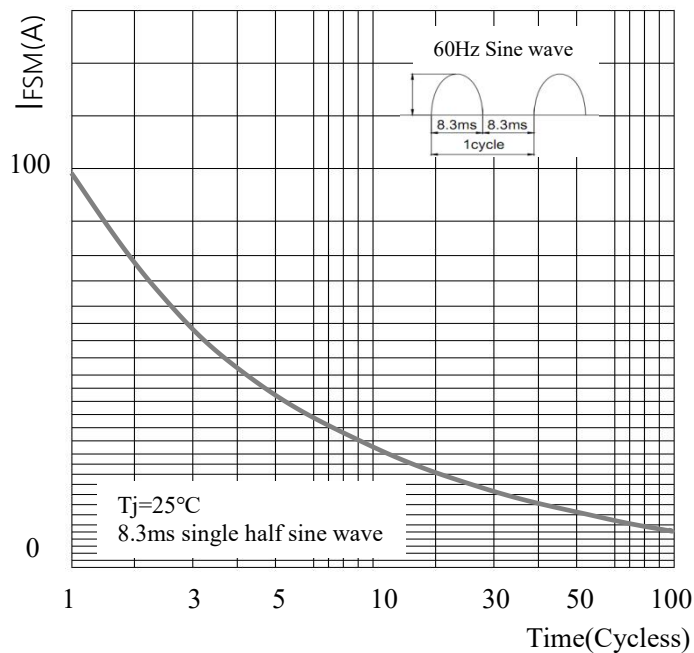
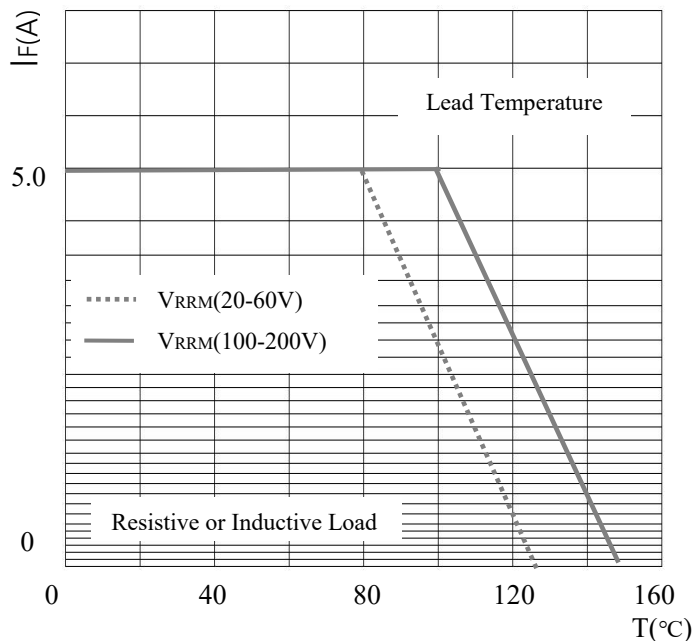
■ Typical applications

- For use in general purpose rectification of power supplies, inverters, converters and freewheeling diodes for consumer, and telecommunication.

■ Maximum Ratings @ $T_a = 25^\circ\text{C}$ unless otherwise noted

PARAMETER		SYMBOL	SS52	SS54	SS56	SS510	SS515	SS520	UNIT
Maximum recurrent peak reverse voltage		V _{RRM}	20	40	60	100	150	200	V
Maximum RMS voltage		V _{RSM}	14	28	42	70	105	140	V
Maximum DC Blocking Voltage		V _{DC}	20	40	60	100	150	200	V
Maximum average forward rectified current at T _L =100°C		I _{FM}	5.0						A
Peak forward surge current 8.3 ms single half sine wave superimposed on rated load		I _{FSM}	100						A
Peak forward surge current 1.0 ms single half sine wave superimposed on rated load			200						A
Current squared time @1ms≤t<8.3ms T _j =25°C, Rating of per diode		I ² t	41.50						A ² S
Maximum instantaneous forward voltage @I _F =I _{FM}		V _F	0.55	0.7		0.85		0.95	V
Maximum DC reverse current at rated DC blocking voltage	T _j =25°C	I _R	0.5			0.1			mA
	T _j =100°C	I _R	20			10			mA
Junction temperature range		T _j	-55~+125			-55~+150			°C
Storage temperature range		T _{STG}	-55~+150						°C

■Characteristic Curve



■ Package Outline Dimensions (SMA)

Symbol	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	1.25	1.65	0.049	0.065
B	3.95	4.65	0.156	0.183
C	2.35	2.85	0.093	0.112
D	1.98	2.41	0.078	0.095
E	0.76	1.52	0.030	0.060
F	-	0.203	-	0.008
G	4.70	5.30	0.185	0.209
H	0.15	0.31	0.006	0.012

■ Suggested Pad Layout

Symbol	Reference Dimensions	
	Millimeters	Inches
A	1.70	0.067
B	2.10	0.082
C	2.3	0.090

■ Ordering Information

Package	Reel Size	Reel(pcs)	Identification
SMA	7"	2000	TQS

Notice

XILONG reserves the right to make modifications, enhancements, improvements, corrections or other changes without further notice to any product herein. xilong does not assume any liability arising out of the application or use of any product described herein.