

HIGH VOLTAGE SILICON RECTIFIERS

10-80mA

Standard Recovery, Miniature

MS15-120
MXS15-200

FEATURES:

- PIV: From 1.5kV to 20kV
- 2μS Reverse Recovery
- High Surge Current Ratings
- Low Reverse Leakage
- Corona Free

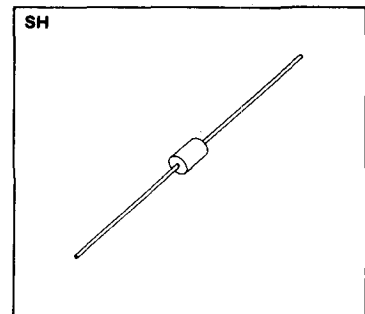
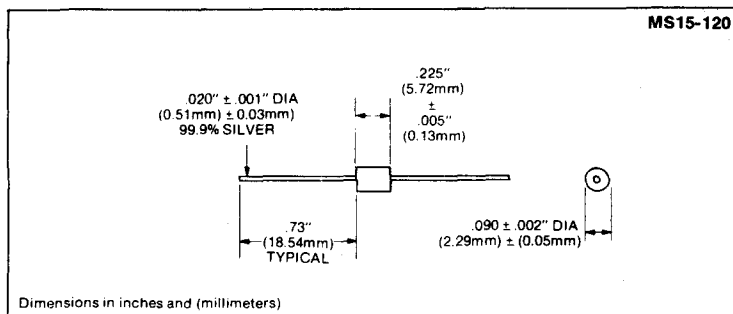
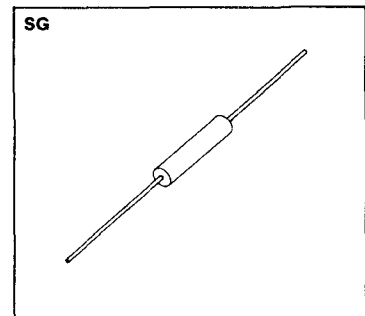
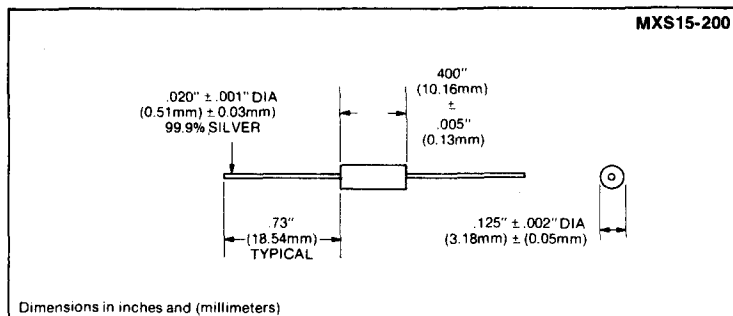
DESCRIPTION

The MXS/MS silicon rectifier series utilizes manufacturing techniques that meet the reliability standards of commercial, industrial and military users. Cylindrical die construction and metallurgical bonds minimize electrical and mechanical stress, contributing to long life. The medium reverse recovery characteristics improve the circuit efficiency of power conversion and control systems.

ABSOLUTE MAXIMUM RATINGS

	MS	MXS
Peak Inverse Voltage	1.5kV to 12kV	1.5kV to 20kV
Maximum Average Rectified Current	See Electrical Specifications	See Electrical Specifications
Maximum One Cycle Surge 8.3ms	See Electrical Specifications	See Electrical Specifications
Maximum Recurrent Peak Current Surge	See Electrical Specifications	See Electrical Specifications
Operating Temperature Range	-55° C to +150° C	-55° C to +150° C
Storage Temperature Range	-65° C to +175° C	-65° C to +175° C

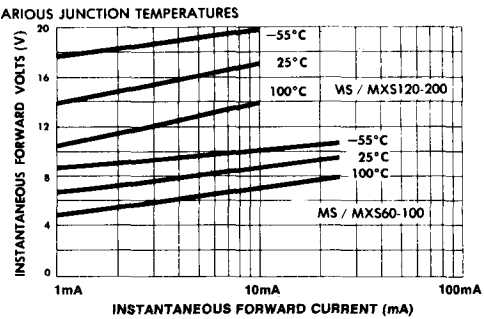
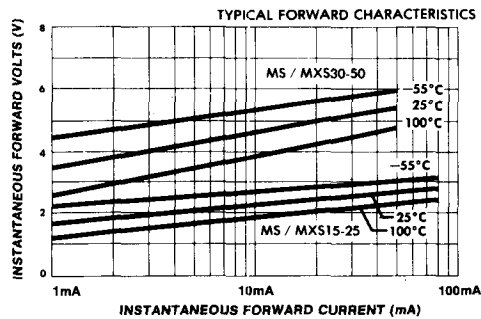
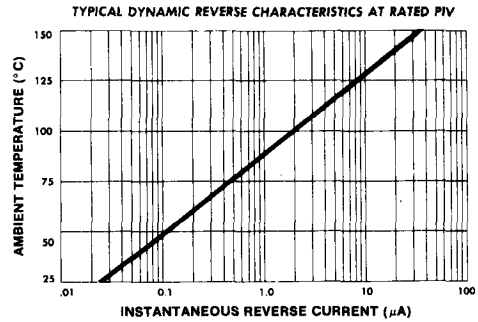
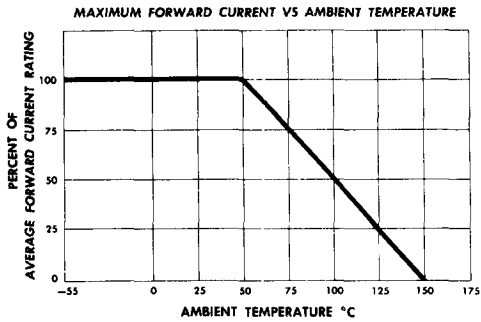
MECHANICAL SPECIFICATIONS



Type	Type	ELECTRICAL SPECIFICATIONS (at 25°C unless noted)					MAXIMUM RATINGS					
		Peak Inverse Voltage*	Maximum Reverse Current @ PIV		Maximum Forward Voltage @ I _O Max.	Maximum Reverse Recovery Time §	Maximum Junction Capacitance @ 100V	Maximum Average Rectified Current†			Maximum Recurrent Peak Current Surge	Maximum One Cycle Surge 8.3mS
		PIV	I _R		V _F	T _{RR}	C _J	I _O			I _F	I _F (surge)
Pkg Style SG	Pkg Style SH	V	25°C μA	100°C μA	25°C V	μS	pF	50°C mA	100°C mA	125°C mA	A	A
MXS15 MXS20 MXS25	MS15 MS20 MS25	1500 2000 2500	0.1 0.1 0.1	10 10 10	5 5 5	2(A) 2(A) 2(A)	2.0 2.0 2.0	80 80 80	40 40 40	20 20 20	0.8 0.8 0.8	8 8 8
MXS30 MXS40 MXS50	MS30 MS40 MS50	3000 4000 5000	0.1 0.1 0.1	10 10 10	8 8 8	2(B) 2(B) 2(B)	1.0 1.0 1.0	40 40 40	20 20 20	10 10 10	0.4 0.4 0.4	4 4 4
MXS60 MXS80 MXS100	MS60 MS80 MS100	6000 8000 10000	0.1 0.1 0.1	10 10 10	12 12 12	2(C) 2(C) 2(C)	1.0 1.0 1.0	25 25 25	12.5 12.5 12.5	6.25 6.25 6.25	0.2 0.2 0.2	2 2 2
MXS120 MXS150 MXS200	MS120	12000 15000 20000	0.1 0.1 0.1	10 10 10	24 24 24	2(D) 2(D) 2(D)	1.0 1.0 1.0	10 10 10	5 5 5	2.5 2.5 2.5	0.1 0.1 0.1	1 1 1

*Operation and testing of devices over 10,000 V/inch may require re-encapsulation or immersion in a suitable dielectric material.
 † The stated, AVERAGE RECTIFIED CURRENT ratings require no heat sinking, special mounting or forced air across the body of the device.

NOTE: Maximum lead temperature for soldering is 250°C 3/8" (9.5mm) from case for 5 seconds.



REVERSE RECOVERY TEST CONDITIONS §

TEST	I _F mA	I _R mA	I _{RR} mA
A	40	80	20
B	20	40	10
C	12.5	25	6.25
D	5	10	2.5

