Microsemi Corp.
the diode experts

SANTA ANA, CA
For more information call:
(714) 979-8220

SCOTTSDALE, AZ

MC5610 thru MC5619

FAST RECOVERY HIGH POWER MICRO HIGH VOLTAGE RECTIFIERS

FEATURES

- **Monolithic voidless construction.**
- **Triple layer passivation.**
- **Lowest reverse leakage.**
- **Smallest package available.**
- **Lowest thermal resistance.**
- **Maximum breakdown voltage per die.**
- **Absolute high voltage/high temperature stability.**

DESCRIPTION

The MC5610 through MC5619 series of high power silicon rectifiers feature the smallest packages available. Metallurgically bonded and hermetically sealed, they exceed all requirements of aerospace and military specifications, including MIL-S-19500. Typical applications include transmitters, power supplies, radar equipment and X-ray machines.

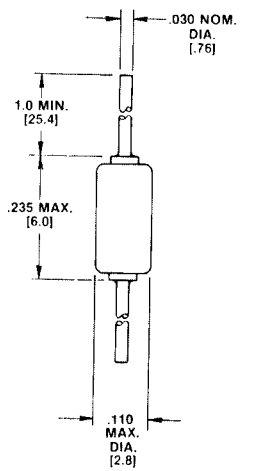


FIGURE 1
Package S

ELECTRICAL CHARACTERISTICS

TYPE NO.	WORKING PEAK REVERSE VOLTAGE V_{RWM}	RMS VOLTAGE	DC BLOCKING VOLTAGE	NOTE 2. AVERAGE RECTIFIED CURRENT @ T_L =		Max. Static FORWARD VOLTAGE @ 100mA	Max. Static REVERSE CURRENT @ V_{RWM}	Max. Static REVERSE CURRENT @ V_{RWM}	ONE CYCLE SURGE	t_{rr} 1/
				55°C	100°C		25°C	100°C		
	VOLTS	VOLTS	VOLTS	mA	mA	VOLTS	μA	μA	AMPS	n SEC
MC 5610	1500	1050	1500	790	415	3.0	1.0	25	8	300
MC 5611	2000	1400	2000	630	330	4.0	1.0	25	6	300
MC 5612	2500	1750	2500	530	280	5.0	1.0	25	5	300
MC 5613	1500	1050	1500	975	515	3.0	1.0	20	8	300
MC 5614	2000	1400	2000	790	415	4.0	1.0	20	6	300
MC 5615	2500	1750	2500	665	350	5.0	1.0	20	5	300
MC 5616	3000	2100	3000	570	300	6.0	1.0	20	4	300
MC 5617	4000	2800	4000	330	120	8.0	2.5	50	3	300
MC 5618	4500	3150	4500	300	110	9.0	2.5	50	2.7	300
MC 5619	5000	3500	5000	275	100	10.0	2.5	50	2.5	300

NOTE 1: I_F = 50 mA, I_R = 100 mA, I_{RR} = 25mA
NOTE 2: Heat sink ⅜" from body

MECHANICAL CHARACTERISTICS

Tinned copper leads..... Refer to Figure 1
Positive terminal (cathode) marked with band.
Operating temperature range:
MC5610-MC5612..... −55°C to 150°C
MC5613-MC5616..... −65°C to 150°C
MC5617-MC5619..... −65°C to 125°C
Storage temperature range (MC5610-MC5619)..... −65°C to 175°C

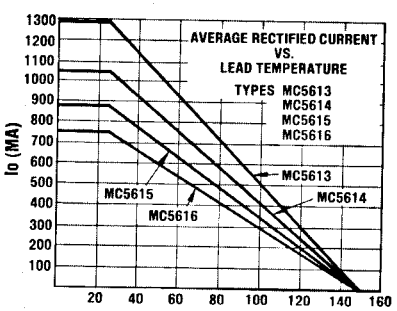


FIGURE 2
LEAD TEMPERATURE (°C)
(L = ⅜ INCH)