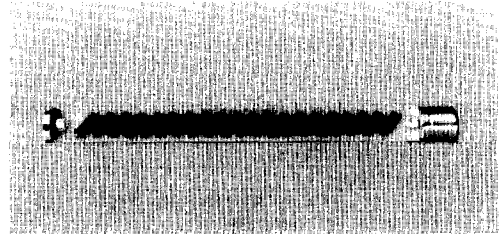


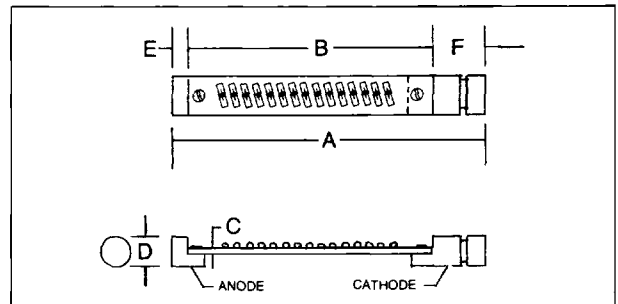
High Voltage Rectifier Assemblies For X-Ray Apparatus H701 H702 H703 H704

Micro Quality Semiconductor has designed this series of high voltage rectifier assemblies for use in X-Ray applications. The number of diodes mounted in series on a glass-epoxy printed circuit board is determined by the required peak reverse voltage. Each diode package contains a stack of controlled avalanche junctions.



LTR.	INCHES				MILLIMETERS			
	H701	H702	H703	H704	H701	H702	H703	H704
A	5.60	6.70	9.06	9.06	142	170	230	230
B	4.61	5.71	8.07	8.07	117	145	205	205
C	.125	.125	.125	.125	3, 18	3, 18	3, 18	3, 18
D	.787	.787	.787	.787	20	20	20	20
E	.197	.197	.197	.197	5	5	5	5
F	.787	.787	.787	.787	20	20	20	20

Dimensional tolerances .XX ± .02", .XXX ± .005".



MAXIMUM RATINGS (At $T_A = 25^\circ\text{C}$ unless otherwise specified)

RATINGS	SYMBOL	H701	H702	H703	H704	UNITS
Peak Reverse Voltage—Operating (NOTE 1)	$V_{R(\text{oper})}$	90	120	150	180	kV
Peak Reverse Voltage—Test	$V_{R(\text{test})}$	100	135	170	200	kV
Peak Surge Current, 1/2 Cycle at 60 Hz (Non-Rep)	I_{FSM}	20				Amps
Peak Surge Current, 10 Cycles at 60 Hz	I_{FRM}	6				Amps
DC Forward Current in 55°C oil (NOTE 1)	I_D	220				mA
Junction Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +125				$^\circ\text{C}$

NOTE 1: To achieve rated current and voltage, diodes must be submerged in Shell Diala Oil AX electrical insulating oil or equivalent.

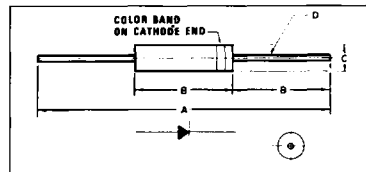
ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$ unless otherwise specified)

CHARACTERISTICS	SYMBOL	H701	H702	H703	H704	UNITS
Maximum Instantaneous Forward Voltage Drop at $I_F = 50$ mA	V_{FM}	120	168	204	240	Volts
Maximum Reverse Current at $V_{R(\text{Oper})}$	I_{RM}	.5	.5	.5	.5	μA
Maximum Reverse Current at $V_{R(\text{TEST})}$	I_{RM}	1	1	1	1	μA
Number of Diodes Per Board		10	14	17	20	

Although purchase of the complete X-Ray board assembly is recommended, a high voltage, controlled avalanche diode (H463-3) may be purchased separately.

LTR.	INCHES	MILLIMETERS
A	1.80	45,72
B	.60	15,24
C	.160 Dia.	4,06
D	.030-.034 Dia.	.76-.86

Dimensional tolerances .XX^{±.02}, .XXX^{±.005} Inch.



DIODE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (At $T_A = 25^\circ\text{C}$)

RATINGS & CHARACTERISTICS	SYMBOL	H463-3	UNITS
Peak Reverse Voltage—Operating	$V_{R(open)}$	9	KV
Peak Reverse Voltage—Test	$V_{R(test)}$	10	KV
Peak Surge Current, 1/2 Cycle at 60Hz (Non-Rep) (Fig. 2)	I_{FSM}	20	Amps
Peak Surge Current, 10 Cycles at 60Hz	I_{FM}	6	Amps
DC Forward Current in 55°C oil (Fig. 1)	I_O	220	mA
Junction Operating and Storage Temperature Range	T_J, T_{STG}	- 55 to + 125	°C
Avalanche Energy, 100 μ sec Pulse Width		.3	Joules
Maximum Instantaneous Forward Voltage Drop at $I_F = 50\text{mA}$	V_{FM}	12	Volts
Maximum Reverse Current at $V_{R(test)}$	I_{RM}	1	μA

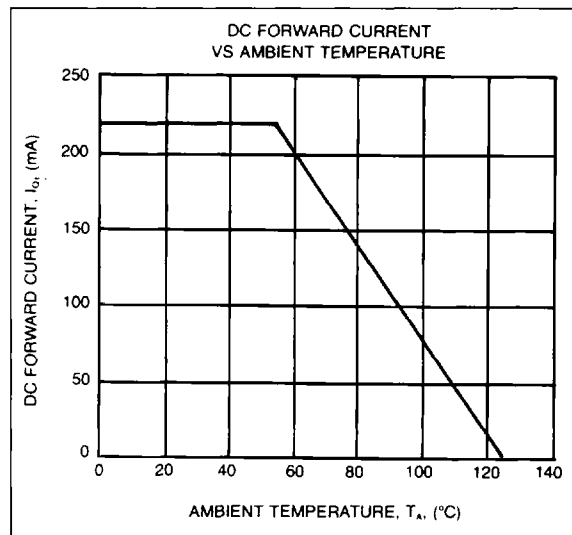


FIGURE 1

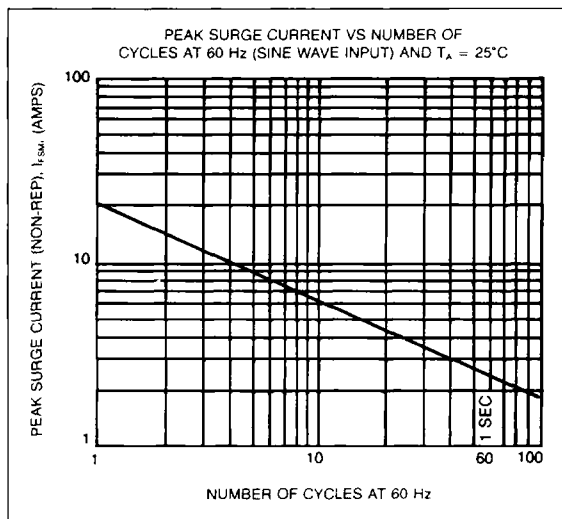


FIGURE 2