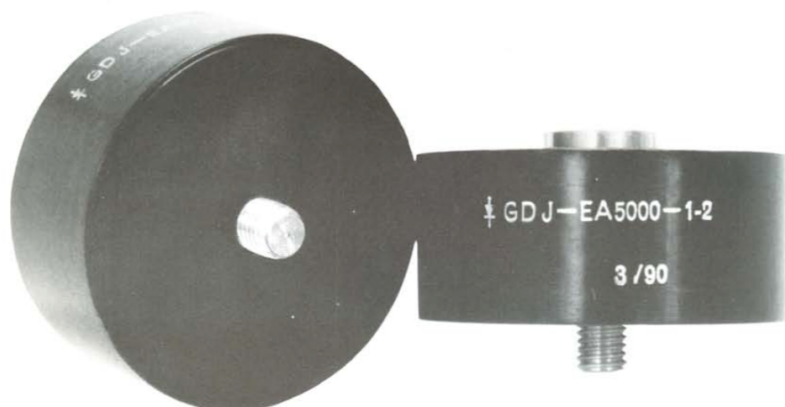


## High Voltage Rectifiers – J Series



The 'J' series of high voltage avalanche rectifier modules consists of half-wave assemblies which can be series and parallel connected to suit the required ratings.

They are a simple and reliable means of making a large range of high quality assemblies for any desired circuit configuration.

### DESIGN

The avalanche diodes are assembled in a flame retardant moulded case and then encapsulated in a special grade of epoxy resin with excellent flame retardant properties. Units have been tested to BS9400 method D.4.6 and have an oxygen index of better than 34%.

### APPLICATION

The modules are series connected by means of 8mm threaded studs and sockets. Care should be taken to fit the special spring and flat washers supplied. Reasonable care should be taken in assembly. Mounting torque is not to exceed 800Ncm.

When several modules are connected in series the IFAV should be reduced. As a guide, with six units in series it should be reduced by 50%. This applies to natural convection cooling with  $T_A=45^{\circ}\text{C}$ . The reduced current rating applies for horizontal mounting, for more information refer to the derating factor table.

For ultimate reliability, experience has shown that in some applications where high transient voltages are known to appear, it is desirable to fit a varistor across each diode.

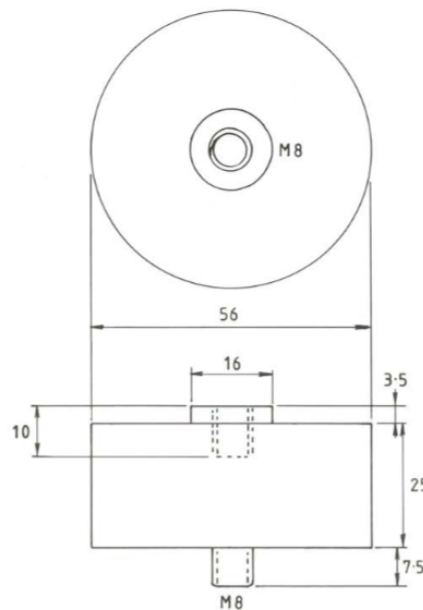
This gives the added advantage of voltage sharing and additional transient suppression. The suffix 'V' is then added to the end of the type code.

When operating at voltages greater than about 30kV precautions must be taken for the protection of the modules against capacitive earth currents. Our applications department will provide advice on the capacitors required for the type of module being used.

We are pleased to design and manufacture complete high voltage stacks. Your application requirements will be considered and we will produce the most economical design for your particular needs.

Type No.	Nominal Output IFAV, A	Abs. max. Output IFAVM	10ms surge 45°C IFSM	Nominal input VAC	Reverse voltage VRRM, kV	Minimum avalanche voltage VBR
J-Ea1650-5	5	6	250	1650	4.8	5250
J-Ea1750-4	4	5	140	1750	4.8	5250
J-Ea3000-2.5	2.5	2.8	100	3000	8	8750
J-Ea5000-1.2	1.2	1.5	60	5000	16	17500
J-Ea9000-0.7	0.7	0.8	60	9000	24	26250

DERATING FACTORS FOR MULTIPLE ASSEMBLIES						
Number of modules in series						
Derate by	2	3	4	5	6	>6
		25%	35%	45%	45%	50%
Ambient temperature 45°C, natural convection cooling						



**OUTLINE**

DIMENSIONS IN MM

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