

CONVERTER & AVALANCHE DIODES

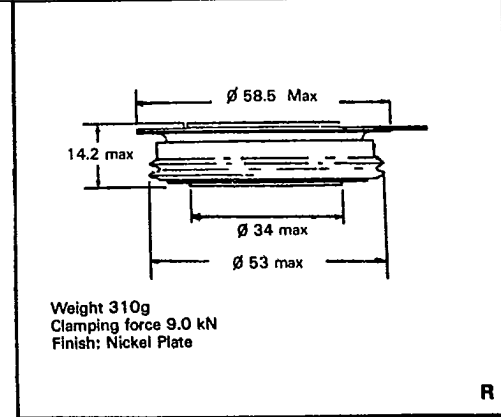
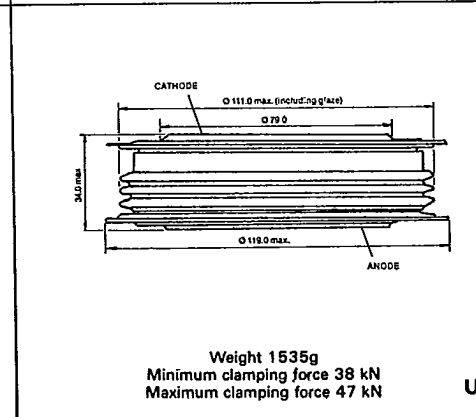
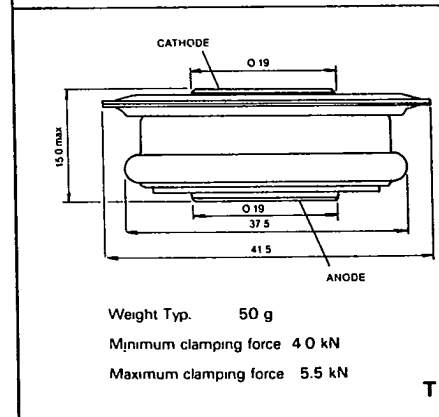
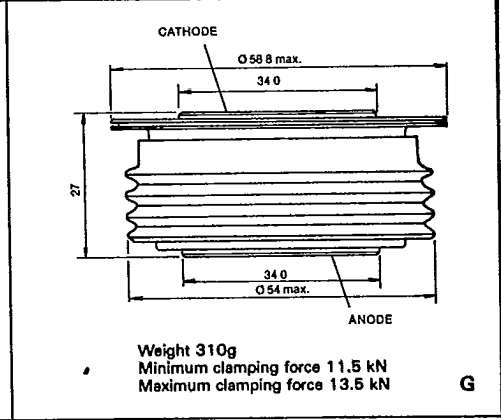
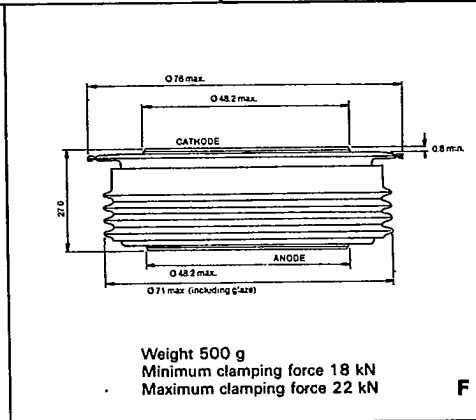
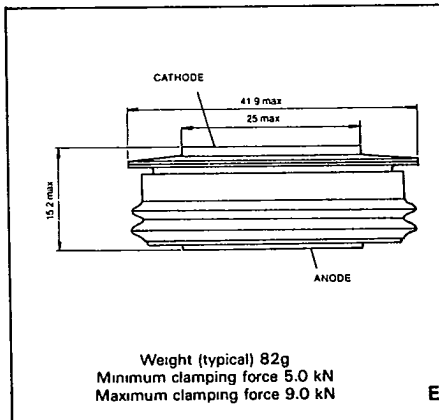
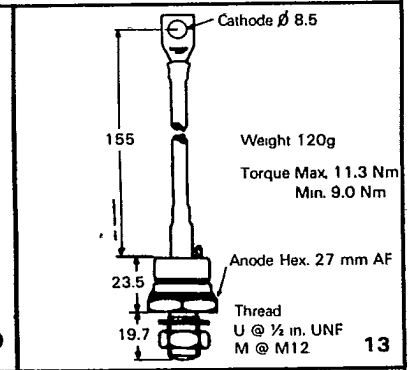
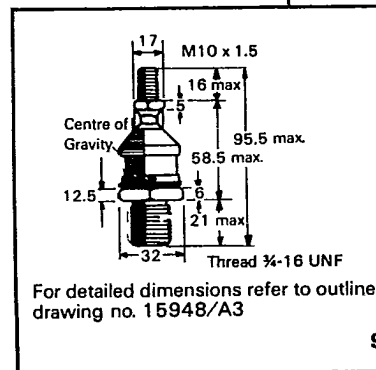
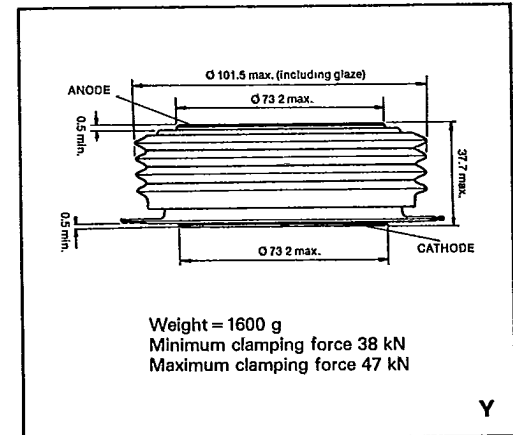
Series Type		Silicon Diameter Voltage	Repetitive Peak Reverse Voltage Available	Non-repetitive Peak Reverse Voltage	Peak Reverse Current at T _J	Mean Forward Current		Continuous Forward Current		Surge Current at T _J 50% V _{RRM} 10ms Value	I ² t for Fusing at T _J 10ms 3ms		Forward Voltage at Peak Current at 25°C	
Stud Cathode	Stud Anode	mm	V _{RRM} V	V _{RSM} V	I _{RM} mA	I _{F(AV)} at T _{HS} A °C		I _F at T _{HS} A °C		I _{FSM} kA	I ² t A ² s x 10 ³		V _{FM} V	I _{FM} A
CONVERTER DIODES														
M303	M303'R		1200-2400	1500-2700	30	300	110*	450	105*	5.2	135.2	72.00	1.25	600
BUTTON CAPSULE DIODES														
DS412	15		4000-4400	4100-4500	20	230	55	345	55	1.5	11.25	7.25	2.1	300
DS402	15		100-1200	150-1400	15	575	55	765	55	4.5	100	75	1.25	450
DS912	31		2500-5600	2900-6000	50	600	55	870	55	5.6	157	101	2.1	1200
DS502	22		100-1400	200-1500	30	720	55	1130	55	6.5	211	—	1.2	600
DS1112	38		2500-5600	2900-6000	75	870	55	1200	55	8.5	360	260	2.1	1800
DS1109	38		3000-4400	3400-4800	50	970	55	1350	55	9.2	422	320	1.8	1800
DS804	29.5		700-2100	800-2200	50	1030	55	1380	55	9.0	405	325	1.3	1200
DS1107	38		2400-3600	2800-4000	50	1120	55	1600	55	12.0	720	470	1.6	1800
DS904	31		1000-2900	1200-3000	50	1140	55	1600	55	9.0	405	325	1.3	1200
DS2012	50		4200-5600	4300-5700	75	1350	55	2000	55	13.5	920	—	2.1	3400
DS2009	50		3000-4400	3400-4800	75	1480	55	2100	55	16.5	1350	845	1.8	3400
DS1104	38		1000-2900	1200-3000	50	1530	55	2130	55	16.0	1280	845	1.3	1800
DS2007	50		2400-4000	2800-4000	75	1720	55	2400	55	20.0	2000	1110	1.6	3400
DS1101	38		100-1200	150-1400	50	2100	55	2800	55	25.0	3120	2000	1.07	1800
DS2004	50		1000-2400	1200-2800	50	2500	55	3400	55	25.0	3120	1900	1.3	3400
DS2002	50		100-1500	150-1600	50	2800	55	3950	55	33.0	5440	3900	1.18	3400
DS2106	75		2000-3600	2100-3700	250	4000	55	5700	55	50.0	12500	7880	1.25	3000
DS2103	75		800-2400	900-2500	150	5700	55	8100	55	65.0	21125	13535	1.1	3000
DS2102	75		100-1500	200-1600	100	6500	55	8800	55	80.0	32000	19500	1.05	3000

Series Type		Min. Avalanche Voltage	Repetitive Peak Reverse Voltage	Mean Forward Current		Surge Current 10ms value Max. T _J 50% V _{RRM}	Max. Peak Reverse Current at V _{RRM} max. T _J	Virtual Junction Temperature	Max. Peak Forward Voltage at T _{case} = 25°C	Peak Forward Current	Thermal Resistance Junction to heatsink surface or case (c)	Factors Needed for Power Loss Calculations		Out-line	Wgt.
Stud Cathode	Stud Anode	V _(BR) min V	V _{RRM} V	I _{F(AV)} A	at T _{HS} °C	I _{FSM} A	I _{RM} mA	T _J °C	V _{FM} V	I _{FM} A	R _{th(j-c)} °C/W	V _O V	R _O Ω		g
AVALANCHE DIODES															
MZ112	MZ112'R	4100-4500	4000-4400	110	90	1500	20	150	2.1	300	0.25(c)	1.12	0.00379	13	120
DSZ412SE	DSZ412SE	4100-4500	4000-4400	230	55	1500	20	150	2.1	300	0.115	1.12	0.00379	E	82

* = case temperature

Virtual Junction Temperature	Thermal Resistance Junction to Heatsink surface, c = junction to case, d.c.	Weight (typ)	Mounting Torque† or Clamping Force	Outline	Factors needed for Power Loss Calculations	
T_{vj} °C	$R_{th(j-h)}$ °C/W	g	Nm† kgf		V_O V	R_O Ω
175	0.15 (c)	175	27†	9	0.70	0.00084
150	0.115	65	280	E	1.12	0.00379
175	0.100	50	460	T	0.81	0.00084
150	0.052	310	920	G	1.15	0.00102
175	0.090	50	560	T	0.84	0.000667
150	0.040	310	1275	G	1.15	0.00067
150	0.040	310	1275	G	0.88	0.000687
175	0.065	82	815	E	0.94	0.00032
150	0.040	310	1275	G	0.75	0.00044
175	0.052	310	920	G	0.94	0.00032
150	0.026	500	1990	F	1.00	0.00042
150	0.026	500	1990	F	0.84	0.000383
175	0.040	310	1275	G	0.67	0.00031
150	0.026	500	1990	F	0.82	0.00029
175	0.040	310	1275	G/R	0.77	0.000118
175	0.026	500	1990	F	0.82	0.00016
175	0.026	500	1990	F	0.74	0.00012
150	0.0115	1535	4385	U/Y	0.72	0.000122
175	0.0115	1535	4385	U/Y	0.75	0.000063
175	0.0115	1535	4385	U/Y	0.78	0.000032

All dimensions are in mm.



Full Data on most device types is available on request