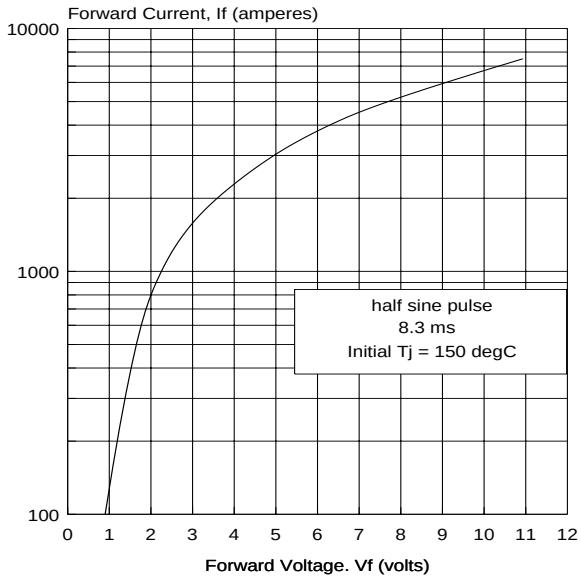
SDD66
40mm RECTIFIER DIODE
7000V / 520A

The SDD66 rectifier diode features a nominal 40mm silicon junction diameter design , manufactured by the proven multi-diffusion process. High reverse voltage blocking capability is optimized with moderate recovery current and low forward voltage.

SDD66 is designed specifically for transportation , industrial and utility 50/60 Hz rectifiers having very high current surge and I^2t requirements.

FORWARD CHARACTERISTIC
Process Maximum



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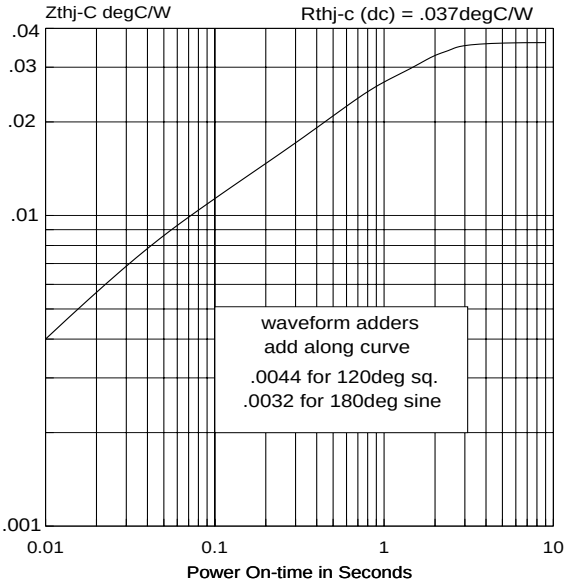
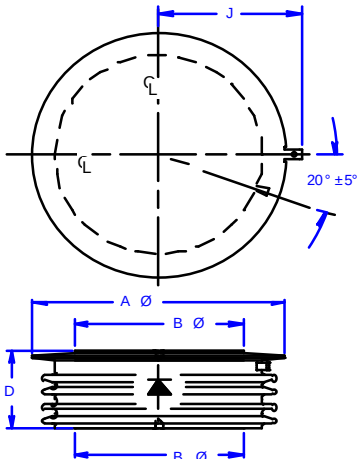
THERMAL IMPEDANCE vs> POWER ON-TIME



SELECTION TABLE

Model No.	Repetitive Peak Reverse Voltage V_{RRM} @ T_J = 0 - 150°C	V_{RRM} @ T_J = -40°C
SDD66MT	7000 V	6500 V
SDD66MR	6800	6300
SDD66MM	6600	6100
SDD66MH	6400	6000
SDD66MD	6200	5800
SDD66KT	6000	5600

MECHANICAL OUTLINE



AΦ = 2.30 in (58.0 mm)
BΦ= 1.35 in (34.3 mm)
D= 1.04 in (26.4 mm)

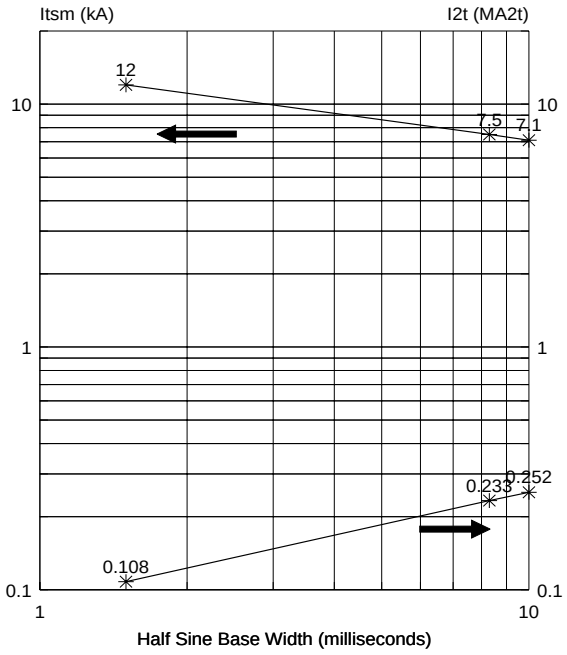
CLAMPING FORCE REQUIRED
3500 -4200 lbs.15.6 - 18.7kN

175 Great Valley Pkwy. Malvern, PA 19355
USA

LIMITING CHARACTERISTICS AND RATINGS

PARAMETER	SYMBOL	TEST CONDITIONS	MAX. VALUES	UNITS
Average current	I_{AV}	half sine T_C= 10°C	520	A
Repetitive peak reverse voltage	V_{RRM}	T_J = -40 to +150°C 50/60 Hz	see page 1	V
Repetitve peak reverse current	I_{RRM}	T_J=150°C 25°C	65 10	ma
Forward voltage	V_{FM}	I_F=1kA, 150°C	2.20	V
Peak recovery current	I_{RM}	T_J = 150°C @ 10A/us	250	A
Non-rep peak surge current	I_{FSM}	T_J=160° t_p=8.3ms t_p=10ms V_R=0	 7500 7100	 A

NON-REPETITIVE SURGE CURRENT AND I2t CAPABILITY FOR FUSE COORDINATION



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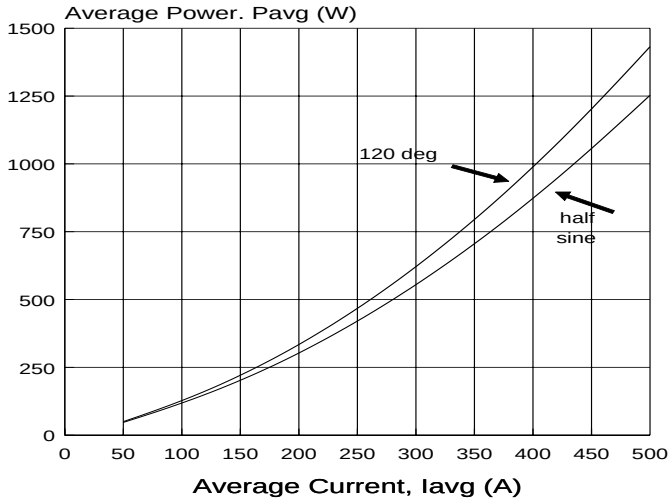
POWER DISSIPATION
Full Cycle Average 50/60 Hz



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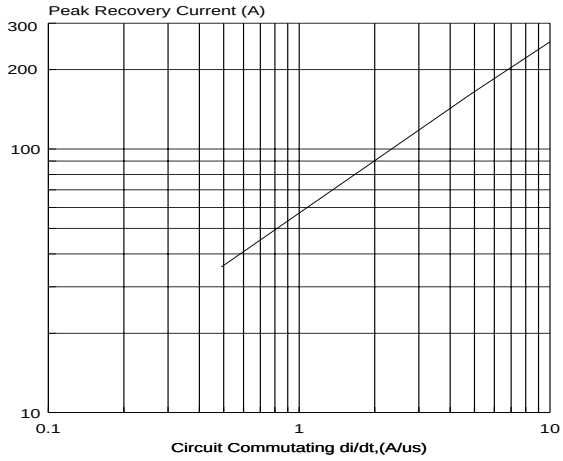
AVERAGE POWER DISSIPATION

I_{AV} (A)	Tj = 150 degC half sine	120° sq.
50	47	50
100	115	123
150	199	217
200	300	331
250	418	464
300	552	618
350	703	792
400	870	985
450	1053	1198
500	1253	1432

MAXIMUM PEAK RECOVERY CURRENT



SDD66