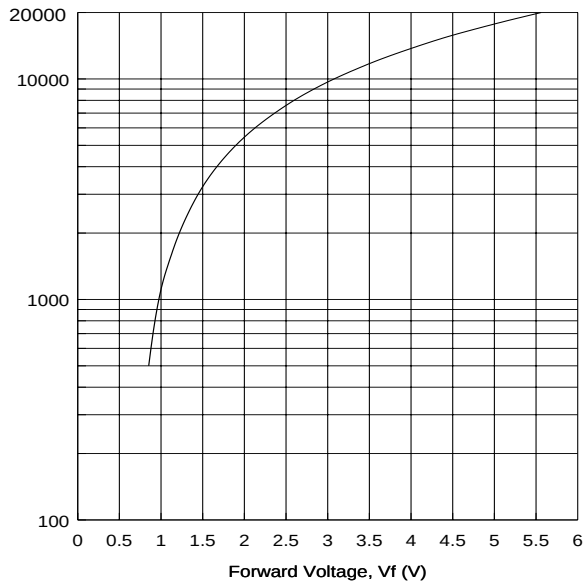
Southern States

Powers the Future

A641
40mm RECTIFIER DIODE
2600V / 1500A

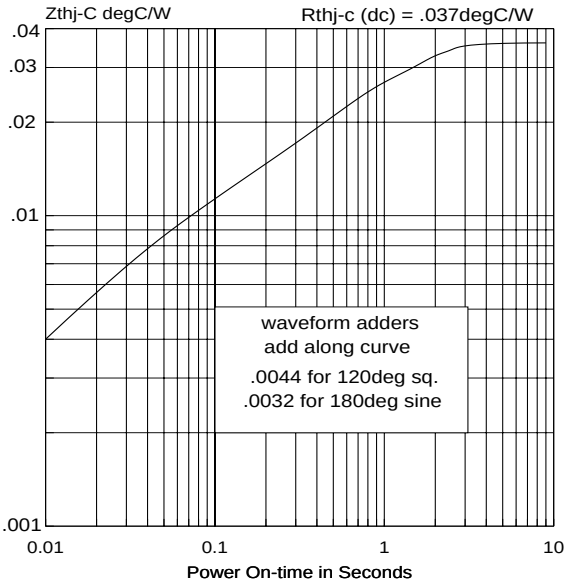
The A641 rectifier diode features a nominal 40mm silicon junction diameter design , manufactured by the proven multi-diffusion process. High reverse voltage blocking capability is optimized with moderate recovery current and low forward voltage.
A641 is designed specifically for transportation , industrial and utility 50/60 Hz rectifiers having very high current surge and I^2t requirements.

FORWARD CHARACTERISTIC
Process Maximum @ Tj=160 C



93C

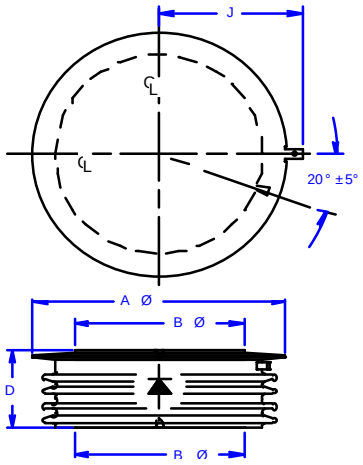
THERMAL IMPEDANCE vs> POWER ON-TIME



SELECTION TABLE

Model No.	Repetitive Peak Reverse Voltage V_{RRM} @ T_J = 0 - 185°C	V_{RRM} @ T_J = -40°C
A641LM	2600 V	2400 V
A641LE	2500	2300
A641LD	2400	2200
A641LC	2300	2100
A641LB	2200	2000
A641LA	2100	1900
A641L	2000	1800
A641PT	1900	1700
A641PN	1800	1600

MECHANICAL OUTLINE



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

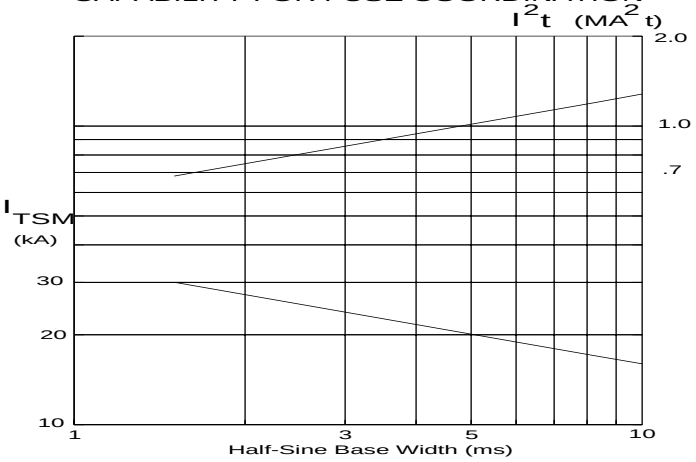
CLAMPING FORCE REQUIRED
3500 -4200 lbs.15.6 - 18.7kN

93c:

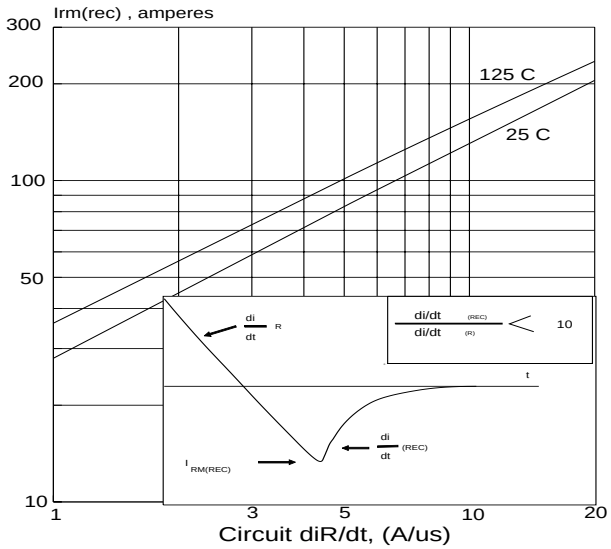
LIMITING CHARACTERISTICS AND RATINGS

PARAMETER	SYMBOL	TEST CONDITIONS	MAX. VALUES	UNITS
Average current	I_{AV}	half sine T_C= 95°C	1500	A
Repetitive peak reverse voltage	V_{RRM}	T_J = -40 to +185°C 50/60 Hz	see page 1	V
Repetitve peak reverse current	I_{RRM}	T_J=185°C 25°C	70 10	ma
Forward voltage	V_{FM}	I_F=1kA, 25°C 160°C	1.095 0.99	V
Peak recovery current	I_{RM}	T_J = 125°C @ 10A/us	160	A
Non-rep peak surge current	I_{FSM}	T_J=160° t_p=8.3ms t_p=10ms V_R=0	17 15	kA

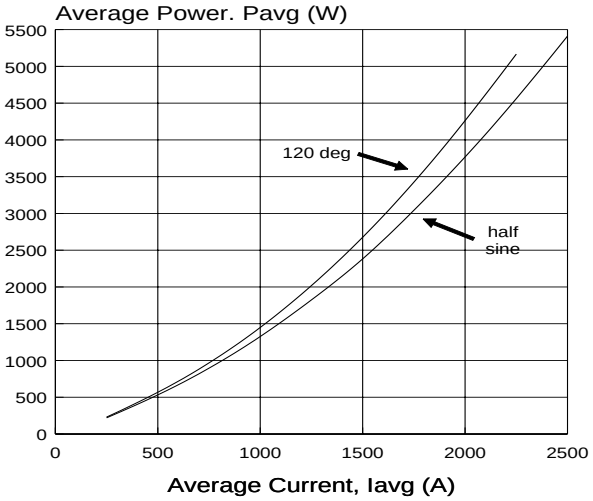
NON-REPETITIVE SURGE CURRENT AND I2t CAPABILITY FOR FUSE COORDINATION



MAXIMUM PEAK RECOVERY CURRENT



POWER DISSIPATION
Full Cycle Average



AVERAGE POWER DISSIPATION

Tj = 160 degC

I_{AV} (A)	half sine	120° sq.
250	220	230
500	517	550
750	882	950
1000	1314	1435
1250	1817	2004
1500	2360	2661
1750	3035	3407
2000	3753	4242