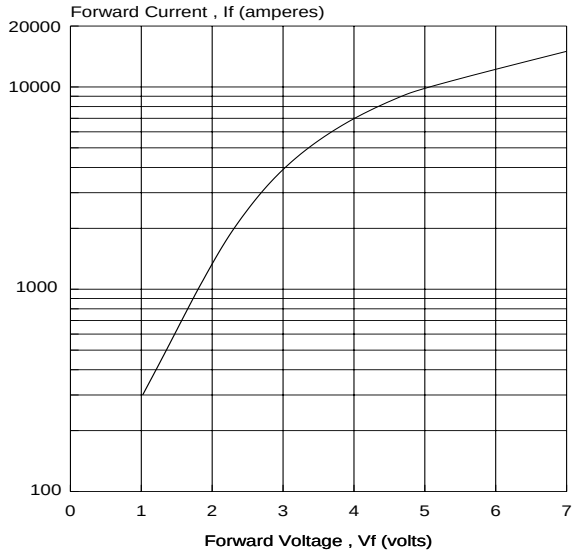
SILICON POWER

A796
53mm Fast Recovery DIODE
1500 - 2500V

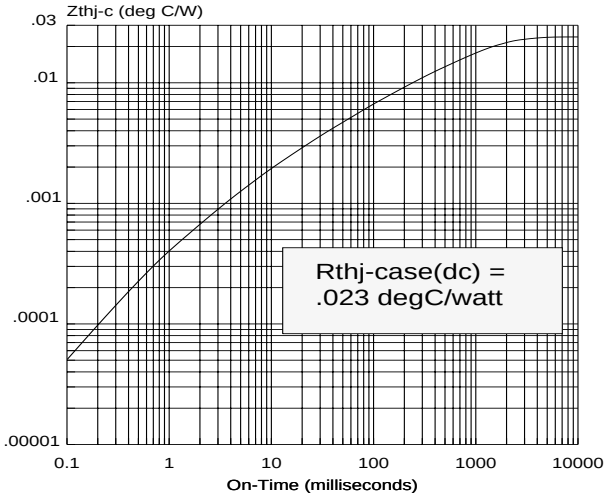
The A796 fast recovery diode is designed as a parallel mate for GTO's used in voltage fed inverter circuits normally requiring the bypass function. Its relatively low recovery current and charge in combination with low thermal resistance offer a new advantage for optimizing other circuit components. It is manufactured by the proven multi-diffusion process with 53 mm diameter silicon and is supplied in a disc-type package ready to mount using commercially available heat dissipators and clamping hardware.

FORWARD CHARACTERISTIC
Process Maximum @ Tj=125 C



91C:7/12/96

THERMAL IMPEDANCE vs. ON-TIME

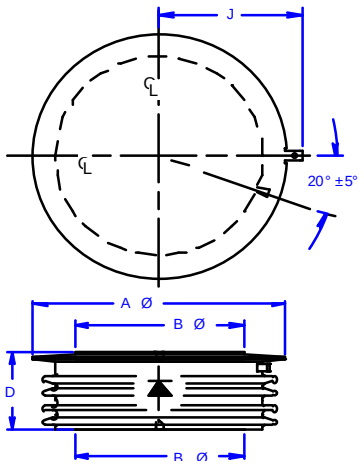


MAXIMUM RATINGS & PARAMETERS

Maximum repetitive peak reverse voltage	V_{RRM}	T_J = -40 to +125°C	to 2500	V
Maximum forward average & RMS current ratings	$I_{F(AV)}$	T_{case} 70°C	925	A
	I_{RMS}		1450	
Maximum reverse leakage current	I_{RRM}		75	ma
Forward voltage drop	V_{FM}	I_T=1000A t_p=8.3ms T_J=125°C	1.75V	
Maximum peak recovery current	I_{RR}	@ 10 A/us	45	A
		@ 100 A/us	220	
Maximum recovery charge	Q_{RR}	@ 10 A/us	200	uC
		@100A/us	500	
Typical recovery time and snap factor	t_{RR}		3.5 0.5	us

*(tested with 1uF, 4 ohm snubber)

MECHANICAL OUTLINE



AΦ = 2.96 in (75.2 mm)
BΦ=1.90 in (48.3 mm)
D=1.07 in (27.2 mm)

CLAMPING FORCE REQUIRED
5000 - 6000 lb / 22.4 - 26.7 kN

175 Great Valley Pkwy. Malvern, PA 19355 USA