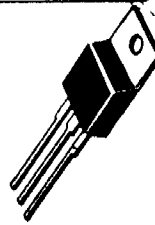


**C122
Series**



MAXIMUM RATINGS

Rating	(Note 2)	Symbol	Value	Unit
Repetitive Peak Off-State Voltage Repetitive Peak Reverse Voltage	C122F	V _{DRM} V _{RRM}	50	Volts
	C122A		100	
	C122B		200	
	C122C		300	
	C122D		400	
	C122E		500	
	C122M		600	
Non-Repetitive Peak Reverse Voltage	C122F	V _{RSM}	75	Volts
	C122A		200	
	C122B		300	
	C122C		400	
	C122D		500	
	C122E		600	
	C122M		700	
Forward Current RMS (All Conduction Angles)	T _C = 75°C	I _T (RMS)	8	Amps
Peak Forward Surge Current (1/2 Cycle, Sine Wave, 60 Hz)		I _{TSM}	90	Amps
Circuit Fusing Considerations (t = 8.3 ms)		I ² t	34	A ² s

Rating	(Note 2)	Symbol	Value	Unit
Forward Peak Gate Power (t = 10 μs)		P _{GM}	5	Watts
Forward Average Gate Power		P _{G(AV)}	0.5	Watt
Forward Peak Gate Current		I _{GM}	2	Amps
Operating Junction Temperature Range		T _J	-40 to +100	°C
Storage Temperature Range		T _{stg}	-40 to +125	°C

(2) Add lead form suffix designator ("L") to part number for lead configurations 2 thru 6. See Thyristor Selection Guide for information.

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance, Junction to Case	R _{θJC}	1.8	°C/W

ELECTRICAL CHARACTERISTICS (T_C = 25°C unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
Peak Forward or Reverse Blocking Current (Rated V _{DRM} or V _{RRM}) T _C = 25°C T _C = 100°C	I _{DRM} , I _{RRM}	—	—	10 0.5	μA mA
Peak On-State Voltage (1) (I _{TM} = 16 A Peak, T _C = 25°C)	V _{TM}	—	—	1.83	Volts
Gate Trigger Current (Continuous dc) (V _D = 6 V, R _L = 91 Ohms, T _C = 25°C) (V _D = 6 V, R _L = 45 Ohms, T _C = -40°C)	I _{GT}	—	—	25 40	mA
Gate Trigger Voltage (Continuous dc) (V _D = 6 V, R _L = 91 Ohms, T _C = 25°C) (V _D = 6 V, R _L = 45 Ohms, T _C = -40°C) (V _D = Rated V _{DRM} , R _L = 1000 Ohms, T _C = 100°C)	V _{GT}	—	—	1.5 2 —	Volts
Holding Current (V _D = 24 Vdc, I _T = 0.5 A, 0.1 to 10 ms Pulse, Gate Trigger Source = 7 V, 20 Ohms) T _C = 25°C T _C = -40°C	I _H	—	—	30 60	mA
Turn-Off Time (V _D = Rated V _{DRM}) (I _{TM} = 8 A, I _R = 8 A)	t _q	—	50	—	μs
Critical Rate-of-Rise of Off-State Voltage (V _D = Rated V _{DRM} , Linear, T _C = 100°C)	dv/dt	—	50	—	V/μs

