

LSCR200 (Chip Size: 21.5×21.5 mm) 200A Thyristor High Voltage, Phase Control SCR Chip

Features

- Center amplifying gate
- Hermetic metal case with ceramic insulator
- Compression bonded encapsulation for heavy duty operations such as severe thermal cycling
- Designed and qualified for industrial level

Applications

- DC motor controls
- Controlled DC power supplies
- AC controllers



MAJOR RATINGS AND CHARACTERISTICS			
PARAMETER	TEST CONDITIONS	VALUES	UNITS
$I_{T(AV)}$		200	A
	T_C	85	°C
$I_{T(RMS)}$		314	A
I_{TSM}	50 Hz	3600	A
	60 Hz	5230	
V_{DRM}/V_{RRM}		1600	V
T_J		-40 to +125	°C

ABSOLUTE MAXIMUM RATINGS					
PARAMETER	SYMBOL	TEST CONDITIONS	VALUES	UNITS	
Maximum average on-state current at case temperature	$I_{T(AV)}$	180° conduction, half sine wave	200	A	
			85	°C	
Maximum RMS on-state current	$I_{T(RMS)}$	DC at 76 °C case temperature	314	A	
Maximum peak, one-cycle non-repetitive surge current	I_{TSM}	t = 10 ms	No voltage reapplied		3600
		t = 8.3 ms	100 % V_{RRM} reapplied		5230
		t = 10 ms			Sinusoidal half wave, initial $T_J = T_J$ maximum
		t = 8.3 ms			4400
Maximum on-state voltage	V_{TM}	$I_{pk} = 570$ A, $T_J = 125$ °C, $t_p = 10$ ms sine pulse	1.4	V	
Maximum holding current	I_H	$T_J = T_J$ maximum, anode supply 12 V resistive load	600	mA	
Maximum (typical) latching current	I_L		1000 (300)		
Maximum non-repetitive rate of rise of turned-on current	di/dt	Gate drive 20 V, 20 Ω , $t_r \leq 1$ μ s $T_J = T_J$ maximum, anode voltage ≤ 80 % V_{DRM}	1000	A/ μ s	