

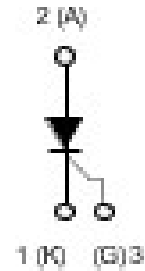
LSCR35 (Chip Size: 7.6×7.6 mm) 35A Thyristor High Voltage, Phase Control SCR Chip

Feature

- Easy control peak current at charger power up to reduce passive / electromechanical components

Applications

- Typical usage is in input rectification crowbar (soft start) and AC switch in motor control, UPS, welding and battery charge



Description

LSCR35 high voltage series of silicon controlled rectifiers are specifically designed for medium power switching and phase control applications.

MAJOR RATINGS AND CHARACTERISTICS			
PARAMETER	TEST CONDITIONS	VALUES	UNITS
$I_{T(AV)}$	Sinusoidal waveform	35	A
I_{RMS}		55	
V_{RRM}/V_{DRM}		1600	V
I_{TSM}		525	A
V_T	40 A, $T_J = 25\text{ }^\circ\text{C}$	1.4	V
T_J		-40 to +125	$^\circ\text{C}$

ABSOLUTE MAXIMUM RATINGS					
PARAMETER	SYMBOL	TEST CONDITIONS	VALUES	UNITS	
Maximum peak on-state voltage	V_{TM}	110 A, $T_J = 25\text{ }^\circ\text{C}$	1.4	V	
		90 A, $T_J = 25\text{ }^\circ\text{C}$	1.4		
Maximum rate of rise of turned-on current	di/dt	$T_J = 25\text{ }^\circ\text{C}$	100	A/ μs	
Maximum holding current	I_H	Anode supply = 6 V, resistive load, initial $T_J = 1\text{ A}$, $I_T = 25\text{ }^\circ\text{C}$	300	mA	
Maximum latching current	I_L	Anode supply = 6 V, resistive load, $T_J = 25\text{ }^\circ\text{C}$	350		
Maximum reverse and direct leakage current	I_{RRM}/I_{DRM}	$T_J = 25\text{ }^\circ\text{C}$	$V_R = \text{rated } V_{RRM}/V_{DRM}$	0.5	
		$T_J = 125\text{ }^\circ\text{C}$		10	
Maximum required DC gate voltage to trigger	V_{GT}	$T_J = -40\text{ }^\circ\text{C}$	Anode supply = 6 V resistive load	4.0	V
		$T_J = 25\text{ }^\circ\text{C}$		2.5	
		$T_J = 125\text{ }^\circ\text{C}$		1.7	
Maximum required DC gate current to trigger	I_{GT}	$T_J = -40\text{ }^\circ\text{C}$	Anode supply = 6 V resistive load	50	mA
		$T_J = 25\text{ }^\circ\text{C}$		35	
		$T_J = 125\text{ }^\circ\text{C}$		20	
Maximum DC gate voltage not to trigger	V_{GD}	$T_J = 125\text{ }^\circ\text{C}$, $V_{DRM} = \text{rated value}$	0.25	V	
Maximum DC gate current not to trigger	I_{GD}		6	mA	