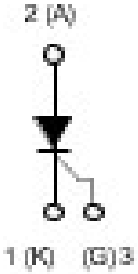
LSCR25 (Chip Size: 6.4×6.4 mm)
25A Thyristor High Voltage, Phase Control SCR Chip

Features

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



Applications

- On-board and off-board EV / HEV battery chargers
- Renewable energy inverters

Description

The LSCR25 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	25	A
I_{RMS}		30	
V_{RRM}/V_{DRM}		1600	V
I_{TSM}		375	A
V_T	20 A, T_J = 25 °C	1.4	V
T_J		-40 to +125	°C

ABSOLUTE MAXIMUM RATINGS					
PARAMETER	**SYMBOL**	**TEST CONDITIONS**		**VALUES**	**UNITS**
Maximum on-state voltage drop	V_{TM}	20 A, T_J = 25 °C		1.4	V
Maximum reverse and direct leakage current	I_{RM}/I_{DM}	T_J = 25 °C	V_R = rated V_{RRM}/V_{DRM}	0.5	mA
		T_J = 125 °C		10	
Maximum holding current	I_H	Anode supply = 6 V, resistive load, initial I_T = 1 A, T_J = 25 °C		150	
Maximum latching current	I_L	Anode supply = 6 V, resistive load, T_J = 25 °C		200	
Maximum rate of rise of turned-on current	dI/dt			150	A/µs
Maximum required DC gate current to trigger	I_{GT}	Anode supply = 6 V, resistive load, T_J = - 10 °C		50	mA
		Anode supply = 6 V, resistive load, T_J = 25 °C		45	
		Anode supply = 6 V, resistive load, T_J = 125 °C		20	
Maximum required DC gate voltage to trigger	V_{GT}	Anode supply = 6 V, resistive load, T_J = - 10 °C		2.5	V
		Anode supply = 6 V, resistive load, T_J = 25 °C		2.0	
		Anode supply = 6 V, resistive load, T_J = 125 °C		1.0	
Maximum DC gate voltage not to trigger	V_{GD}	T_J = 125 °C, V_{DRM} = rated value		0.25	
Maximum DC gate current not to trigger	I_{GD}			2.0	mA