

LSCR55 (Chip Size: 9.6×9.6 mm) 55A Thyristor High Voltage, Phase Control SCR Chip

Features

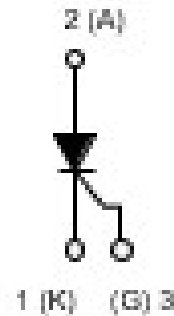
- 150 °C maximum operating junction temperature

Applications

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

Description

The LSCR55 high voltage series of silicon controlled rectifiers are specifically designed for medium power switching, and phase control applications. The glass passivation technology used, has reliable operation up to 150 °C junction temperature.



MAJOR RATINGS AND CHARACTERISTICS			
PARAMETER	TEST CONDITIONS	VALUES	UNITS
V_{RRM}/V_{DRM}		1600	V
V_T	50 A, $T_J = 125\text{ °C}$	1.4	
$I_{T(AV)}$		55	A
I_{RMS}		79	
I_{TSM}		825	
T_J, T_{Stg}		-40 to +125	°C

ABSOLUTE MAXIMUM RATINGS						
PARAMETER	SYMBOL	TEST CONDITIONS		VALUES		UNITS
				TYP.	MAX.	
On-state voltage	V_T	50 A, $T_J = 25\text{ °C}$	1.4	1.4	V	
		100 A, $T_J = 25\text{ °C}$	1.4	1.4		
Rate of rise of turned-on current	di/dt	$T_J = 25\text{ °C}$	-	150	A/ μ s	
Holding current	I_H	Anode supply = 6 V, resistive load, $T_J = 25\text{ °C}$	-	300	mA	
Latching current	I_L		-	350		
Reverse and direct leakage current	I_{RRM}/I_{DRM}		$T_J = 25\text{ °C}$	-		0.05
		$T_J = 125\text{ °C}$	-	10		
Required DC gate voltage to trigger	V_{GT}	$T_J = -40\text{ °C}$	Anode supply = 6 V resistive load	-	1.6	V
		$T_J = 25\text{ °C}$		-	1.5	
		$T_J = 150\text{ °C}$		-	1	
Required DC gate to trigger	I_{GT}	$T_J = -40\text{ °C}$	Anode supply = 6 V resistive load	-	160	mA
		$T_J = 25\text{ °C}$		30	60	
		$T_J = 150\text{ °C}$		-	60	
DC gate voltage not to trigger	V_{GD}	$T_J = 150\text{ °C}$, $V_{DRM} = \text{rated value}$	-	0.2	V	
DC gate current not to trigger	I_{GD}		-	3	mA	