Absolute Maximum Ratings, T_A = 25 °C (Unless Otherwise Noted)

Rating		Symbol	Value	Unit
Repetitive peak off-state voltage	'4C115H3BJ	V_{DRM}	±90	V
	'4C125H3BJ		±100	
	'4C145H3BJ		±120	
	'4C165H3BJ		±135	
	'4C180H3BJ		±145	
	'4C220H3BJ		±180	
	'4C250H3BJ		±190	
	'4C290H3BJ		±220	
	'4C350H3BJ		±275	
	'4C395H3BJ		±320	
Non-repetitive peak impulse current (see Notes 1 and 2)		I_{PPSM}		A
2/10 µs (GR-1089-CORE, 2/10 µs voltage wave shape)			±500	
10/160 µs (TIA-968-A, 10/160 µs voltage wave shape)			±200	
5/310 µs (ITU-T K.44, 10/700 µs voltage wave shape used in K.20/21/45)			±150	
10/560 µs (TIA-968-A, 10/560 µs voltage wave shape)			±100	
10/1000 µs (GR-1089-CORE, 10/1000 µs voltage wave shape)			±100	
Non-repetitive peak on-state current (see Notes 1, 2 and 3)		I_{TSM}		A
20 ms, 50 Hz (full sine wave)			30	
1000 s, 50 Hz			2.1	
Junction temperature		T_J	-40 to +150	°C
Storage temperature range		T_{stg}	-65 to +150	°C

NOTES: 1. Initially the device must be in thermal equilibrium with T_J = 25 °C.
2. The surge may be repeated after the device returns to its initial conditions.
3. EIA/JESD51-2 environment and EIA/JESD51-3 PCB with standard footprint dimensions connected with 5 A rated printed wiring track widths.

Electrical Characteristics, T_A = 25 °C (Unless Otherwise Noted)

Parameter		Test Conditions		Min	Typ	Max	Unit
I_{DRM}	Repetitive peak off-state current	$V_D = V_{DRM}$	T_A = 25 °C			±5	µA
			T_A = 85 °C			±10	
$V_{(BO)}$	Breakover voltage	dv/dt = ±250 V/ms, R_{SOURCE} = 300 Ω	'4C115H3BJ			±115	V
			'4C125H3BJ			±125	
			'4C145H3BJ			±145	
			'4C165H3BJ			±165	
			'4C180H3BJ			±180	
			'4C220H3BJ			±220	
			'4C250H3BJ			±250	
			'4C290H3BJ			±290	
			'4C350H3BJ			±350	
			'4C395H3BJ			±395	
$V_{(BO)}$	Impulse breakover voltage	dv/dt ≤ ±1000 V/µs, Linear voltage ramp, Maximum ramp value = ±500 V di/dt = ±10 A/µs, Linear current ramp, Maximum ramp value = ±10 A	'4C115H3BJ			±125	V
			'4C125H3BJ			±135	
			'4C145H3BJ			±155	
			'4C165H3BJ			±175	
			'4C180H3BJ			±190	
			'4C220H3BJ			±230	
			'4C250H3BJ			±260	
			'4C290H3BJ			±300	
			'4C350H3BJ			±360	
			'4C395H3BJ			±405	
$I_{(BO)}$	Breakover current	dv/dt = ±250 V/ms, R_{SOURCE} = 300 Ω				±600	mA
V_T	On-state voltage	I_T = ±5 A,t_w = 100 µs				±3	V
I_H	Holding current	I_T = ±5 A, di/dt = ±30 mA/ms		±150		±600	mA
C_O	Off-state capacitance	f = 1 MHz, V_d = 1 V rms, V_D = -2 V	'4C115H3BJ '4C125H3BJ			50	pF
			'4C145H3BJ '4C165H3BJ '4C180H3BJ '4C220H3BJ '4C250H3BJ			45	
			'4C290H3BJ '4C350H3BJ '4C395H3BJ			40	

Thermal Characteristics, T_A = 25 °C (Unless Otherwise Noted)

Parameter		Test Conditions	Min	Typ	Max	Unit
$R_{\theta JA}$	Junction to ambient thermal resistance	EIA/JESD51-3 PCB, $I_T = I_{TSM(1000)}$ (see Note 4)			113	°C/W
		265 mm x 210 mm populated line card, 4-layer PCB, $I_T = I_{TSM(1000)}$		50		

NOTE: 4. EIA/JESD51-2 environment and PCB has standard footprint dimensions connected with 5 A rated printed wiring track widths.

Parameter Measurement Information

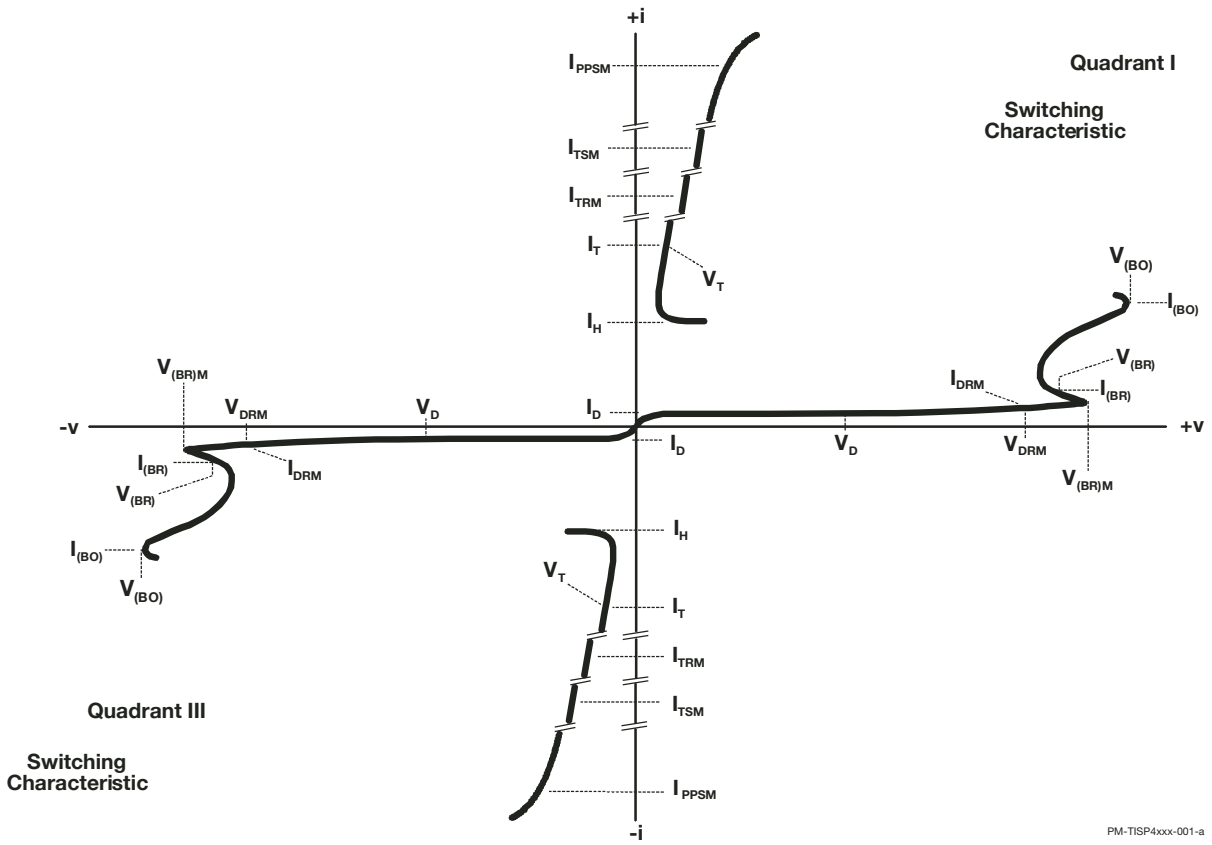

Figure 1. Voltage-Current Characteristic for T and R Terminals
All Measurements are Referenced to the R Terminal

Typical Characteristics