electrical characteristics at 25°C case temperature (unless otherwise noted) (continued)

PARAMETER		TEST CONDITIONS			MIN	TYP	MAX	UNIT
V_{GT}	Gate trigger voltage	V_{supply} = +12 V†	R_L = 10 Ω	$t_{p(g)}$ > 20 µs			2.2	V
		V_{supply} = +12 V†	R_L = 10 Ω	$t_{p(g)}$ > 20 µs			-2.2	
		V_{supply} = -12 V†	R_L = 10 Ω	$t_{p(g)}$ > 20 µs			-2.2	
		V_{supply} = -12 V†	R_L = 10 Ω	$t_{p(g)}$ > 20 µs			3	
V_T	On-state voltage	I_T = ±8.4 A	I_G = 50 mA	(see Note 5)			±1.7	V
I_H	Holding current	V_{supply} = +12 V†	I_G = 0	Init' I_{TM} = 100 mA			30	mA
		V_{supply} = -12 V†	I_G = 0	Init' I_{TM} = -100 mA			-30	
I_L	Latching current	V_{supply} = +12 V†	(see Note 6)			4		mA
		V_{supply} = -12 V†				-2		
dv/dt	Critical rate of rise of off-state voltage	V_{DRM} = Rated V_{DRM}	I_G = 0	T_C = 110°C		±20		V/µs
$dv/dt_{(c)}$	Critical rise of commutation voltage	V_{DRM} = Rated V_{DRM}	I_{TRM} = ±8.4 A	T_C = 70°C	±2	±5		V/µs

† All voltages are with respect to Main Terminal 1.

NOTES: 5. This parameter must be measured using pulse techniques, t_p = ≤ 1 ms, duty cycle ≤ 2 %. Voltage-sensing contacts separate from the current carrying contacts are located within 3.2 mm from the device body.

6. The triacs are triggered by a 15-V (open-circuit amplitude) pulse supplied by a generator with the following characteristics: R_G = 100 Ω, $t_{p(g)}$ = 20 µs, t_r = ≤ 15 ns, f = 1 kHz.

thermal characteristics

PARAMETER		MIN	TYP	MAX	UNIT
$R_{\theta JC}$	Junction to case thermal resistance			2.5	°C/W
$R_{\theta JA}$	Junction to free air thermal resistance			62.5	°C/W

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Bourns:

TIC216D-S TIC216S-S TIC216M-S