

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

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

† All voltages are with respect to Main Terminal 1.

NOTES: 5. This parameter must be measured using pulse techniques, $t_p \leq 1\text{ ms}$, duty cycle $\leq 2\%$. 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:
 $R_G = 100\ \Omega$, $t_{p(g)} = 20\ \mu\text{s}$, $t_r \leq 15\text{ ns}$, $f = 1\text{ kHz}$.

thermal characteristics

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

PRODUCT INFORMATION