

TIC216 Series(6A TRIACS)

6A RMS

TO-220 PACKAGE

400V to 800V Off-State Voltage

Max I_{GT} of 5mA(Quadrant 1)

ABSOLUTE RATING

Symbol	Parameter		Value	Units
V_{DRM}	Repetitive peak off-state voltage	TIC216D TIC216M TIC216S TIC216N	400 600 700 800	V
$I_{T(RMS)}$	Continuous on-state current at(or below) 70 case temperature		6	A
I_{TSM}	Peak on-state surge current full-sine-wave		60	A
I_{TSM}	Peak on-state surge current half-sine-wave		70	A
I_{GM}	Peak gate current		± 1	A
P_{GM}	Peak gate power dissipation(pulse width $\leq 200 \mu s$)		2.2	W
$P_{G(AV)}$	Average gate power dissipation		0.9	W
T_C	Operating case temperature range		-40 ~ 110	
T_{stg}	Storage temperature		-40 ~ 125	

THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
R_{th(j-c)}	Junction to case thermal resistance	2.5	/W
R_{tj(j-a)}	Junction to free air thermal resistance	62.5	/W

ELECTRICAL CHARACTERISTICS at 25 °C case temperature

Symbol	Testing conditions	Min.	Typ.	Max.	Unit
I_{GT}	V_{supply}=+12V, R_L=10Ω, t_{p(g)} > 20 μs	-	-	5	mA
	V_{supply}=+12V, R_L=10Ω, t_{p(g)} > 20 μs	-	-	-5	
	V_{supply}=-12V, R_L=10Ω, t_{p(g)} > 20 μs	-	-	-5	
	V_{supply}=-12V, R_L=10Ω, t_{p(g)} > 20 μs	-	-	10	
V_{GT}	V_{supply}=+12V, R_L=10Ω, t_{p(g)} > 20 μs	-	-	2.2	V
	V_{supply}=+12V, R_L=10Ω, t_{p(g)} > 20 μs	-	-	-2.2	
	V_{supply}=-12V, R_L=10Ω, t_{p(g)} > 20 μs	-	-	-2.2	
	V_{supply}=-12V, R_L=10Ω, t_{p(g)} > 20 μs	-	-	3	
I_H	V_{supply}=+12V, I_G=0, Initiating I_T=100mA	-	-	30	mA
	V_{supply}=-12V, I_G=0, Initiating I_T=-100mA	-	-	-30	
V_{TM}	I_{TM}= ± 8.4A , I_G=50mA	-	-	± 1.7	V
I_{DRM}	V_D=ratedV_{DRM}, I_G=0, T_C=110	-	-	± 2	mA
dv/dt	V_{DRM}=rated V_{DRM}, I_{TRM}= ± 3.5A, T_C=110	-	± 50	-	V/ μs