

TIC206 Series(4A TRIACS)

4A 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	TIC206D 400 TIC206M 600 TIC206S 700 TIC206N 800	V
$I_{T(RMS)}$	Continuous on-state current at(or below) 85 case temperature	4	A
I_{TSM}	Peak on-state surge current full-sine-wave	25	A
I_{TSM}	Peak on-state surge current half-sine-wave	30	A
I_{GM}	Peak gate current	± 0.2	A
P_{GM}	Peak gate power dissipation(pulse width 200 μ s)	1.3	W
$P_{G(AV)}$	Average gate power dissipation	0.3	W
T_C	Operating case temperature range	-40 ~ 110	
T_{stg}	Storage temperature	-40 ~ 125	

THERMAL RESISTANCE

Symbol	Parameter	Value	Unit
Rth(j-c)	Junction to case thermal resistance	7.8	/W
Rtj(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=10 Ω, t_{p(g)} > 20 μs	-	0.5	5	mA
	V_{supply}=+12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	-1.5	-5	
	V_{supply}=-12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	-2	-5	
	V_{supply}=-12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	3.6	10	
V_{GT}	V_{supply}=+12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	0.7	2	V
	V_{supply}=+12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	-0.7	-2	
	V_{supply}=-12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	-0.8	-2	
	V_{supply}=-12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	0.8	2	
I_H	V_{supply}=+12V, I_G=0, Initiating I_T=100mA	-	2	15	mA
	V_{supply}=-12V, I_G=0, Initiating I_T=-100mA	-	-4	-15	
V_{TM}	I_{TM}= ± 4.2A, I_G=50mA	-	± 1.3	± 2.2	V
I_{DRM}	V_D=rated V_{DRM}, I_G=0, T_C=110 °C	-	-	± 1	mA
dv/dt	V_{DRM}=rated V_{DRM}, I_{TRM}= ± 3.5A, T_C=110 °C	-	± 50	-	V/μs