

TIC246 Series(16A TRIACS)

16A RMS

TO-220 PACKAGE

400V to 800V Off-State Voltage

Max I_{GT} of 50mA(Quadrant 1-3)

ABSOLUTE RATING

Symbol	Parameter	Value	Units	
V_{DRM}	Repetitive peak off-state voltage	TIC246D TIC246M TIC246S TIC246N	400 600 700 800	V
$I_{T(RMS)}$	Continuous on-state current at(or below) 70 case temperature	16	A	
I_{TSM}	Peak on-state surge current full-sine-wave at (or below)25 case temperature	125	A	
I_{GM}	Peak gate current	± 1	A	
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	1.9	/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	-	12	50	mA
	V_{supply}=+12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	-19	-50	
	V_{supply}=-12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	-16	-50	
	V_{supply}=-12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	34	-	
V_{GT}	V_{supply}=+12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	0.8	2	V
	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	
	V_{supply}=-12V, R_L=10 Ω, t_{p(g)} > 20 μs	-	0.9	2	
I_H	V_{supply}=+12V, I_G=0, Initiating I_T=100mA	-	22	40	mA
	V_{supply}=-12V, I_G=0, Initiating I_T=-100mA	-	-12	-40	
V_{TM}	I_{TM}= ± 22.5A, I_G=50mA	-	± 1.4	± 2.1	V
I_{DRM}	V_D=rated V_{DRM}, I_G=0, T_C=110 °C	-	-	± 2	mA
dv/dt	V_{DRM}=rated V_{DRM}, I_{GT}=50mA, T_C=110 °C	-	± 100	-	V/ μs