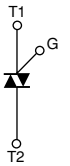
TRIAC（ISOLATED TYPE）

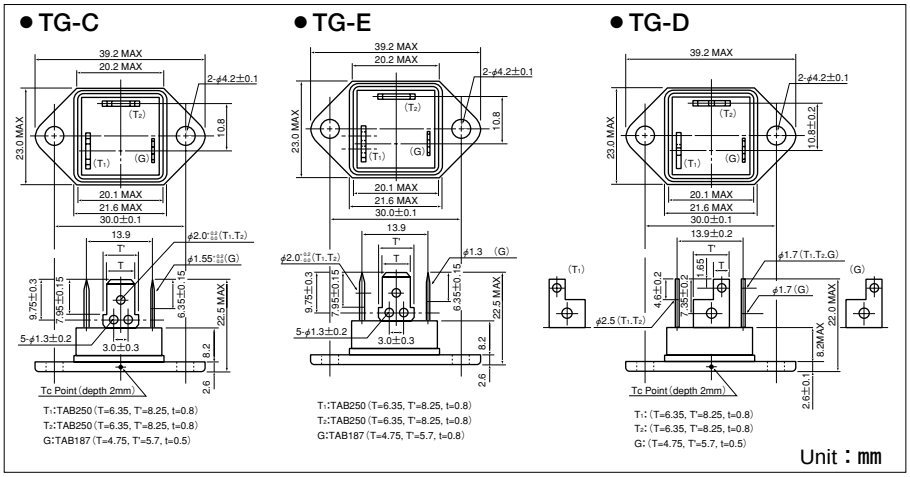
TG25C/E/D

UL;E76102（M）

TG25C/E/D are isolated molded triacs suitable for wide range of applications like copier, microwave oven, solid state switch, motor control, light control and heater control.

- $I_{T(AV)}$ 25A
- High surge capability 250A
- Isolated Nounting（AC2500V）
- Tab Terminals





■Maximum Ratings

（Tj=25℃ unless otherwise specified）

Symbol	Item	Ratings		Unit
		TG25C40	TG25C60	
V_{DRM}	Repetitive Peak Off-State Voltage	400	600	V

Symbol	Item	Conditions	Ratings	Unit
$I_{T(RMS)}$	R.M.S. On-State Current	Tc＝74℃	25	A
I_{TSM}	Surge On-State Current	One cycle, 50Hz/60Hz, peak, non-repetitive	220/250	A
I^2t	I^2t	Value for one cycle of surge current	260	A^2S
P_{GM}	Peak Gate Power Dissipation		10	W
$P_{G(AV)}$	Average Gate Power Dissipation		1	W
I_{GM}	Peak Gate Current		3	A
V_{GM}	Peak Gate Voltage		10	V
di/dt	Critical Rate of Rise of On-State Current	I_G＝100mA, Tj＝25℃, V_D＝½V_{DRM}, dI_G/dt＝1A/μs	50	A/μs
Tj	Operating Junction Temperature		−25 to +125	℃
Tstg	Storage Temperature		−40 to +125	℃
V_{ISO}	Isolation Breakdown Voltage（R.M.S.）	A.C.1 minute	2500	V
	Mounting Torque（M4）	Recommended Value 1.0-1.4（10-14）	1.5（15）	N・m（kgf・cm）
	Mass	Typical value（Excluding bolt, nut and wrapping material）	27	g

■Electrical Characteristics

Symbol		Item	Conditions	Ratings	Unit
I_{DRM}		Reptitive Peak Off-State Current, max	V_D=V_{DRM}, Single phase, half wave, Tj＝125℃	5	mA
V_{TM}		Peak On-State Voltage, max	On-State Current〔√2×$I_{T(RMS)}$〕, Inst. measurement	1.4	V
I_{GT1}^{+}	1	Gate Trigger Current, max	Tj＝25℃, I_T＝1A, V_D＝6V	50	mA
I_{GT1}^{-}	2		Tj＝25℃, I_T＝1A, V_D＝6V	50	
I_{GT3}^{+}	3			—	
I_{GT3}^{-}	4		Tj＝25℃, I_T＝1A, V_D＝6V	50	
V_{GT1}^{+}	1	Gate Trigger Voltage, max	Tj＝25℃, I_T＝1A, V_D＝6V	3	V
V_{GT1}^{-}	2		Tj＝25℃, I_T＝1A, V_D＝6V	3	
V_{GT3}^{+}	3			—	
V_{GT3}^{-}	4		Tj＝25℃, I_T＝1A, V_D＝6V	3	
V_{GD}		Non-Trigger Gate Voltage, min	Tj＝125℃, V_D＝½V_{DRM}	0.2	V
tgt		Turn On Time, max.	$I_{T(RMS)}$, I_G＝100mA, V_D＝½V_{DRM}, Tj＝25℃, dI_G/dt＝1A/μs	10	V
dv/dt		Critical Rate of Rise on-State Voltage,min.	Tj＝125℃, V_D＝⅔V_{DRM}, Exponential wave.	50	V/μs
〔dv/dt〕c		Critical Rate of Rise off-State Voltage at commutation, min	Tj＝125℃, V_D＝⅔V_{DRM}, 〔di/dt〕c＝15A/ms	6	V/μs
I_H		Holding Current, typ.	Tj＝25℃	30	mA
Rth(j-c)		Thermal Impedance, max	Junction to case	1.6	℃/W

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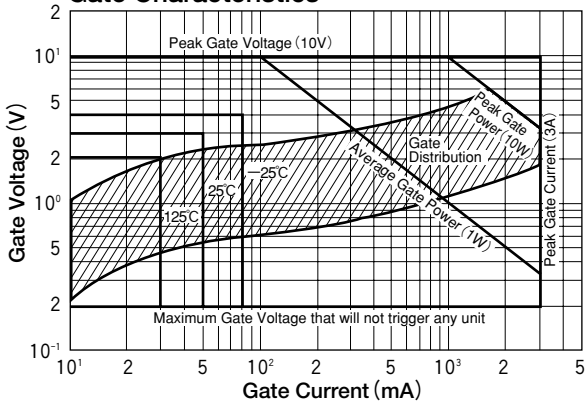
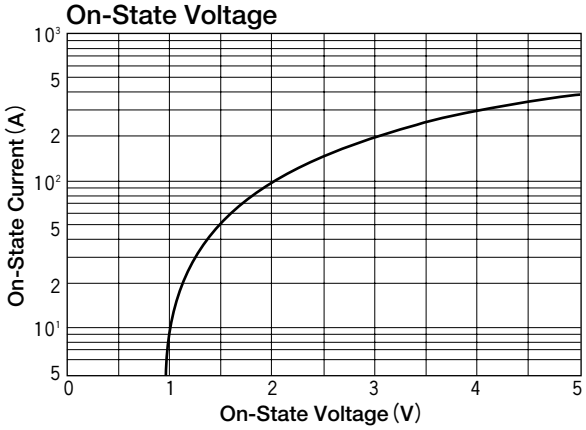
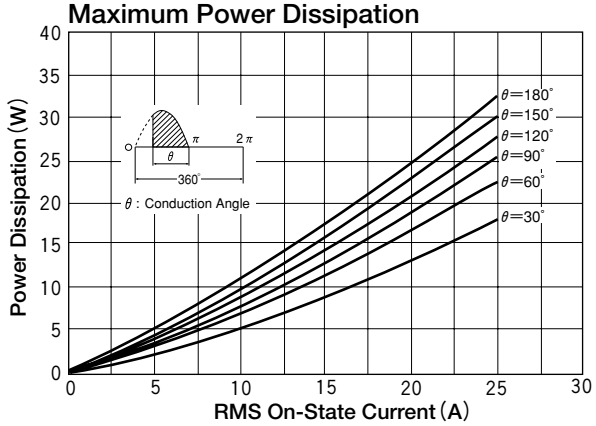
Gate Characteristics



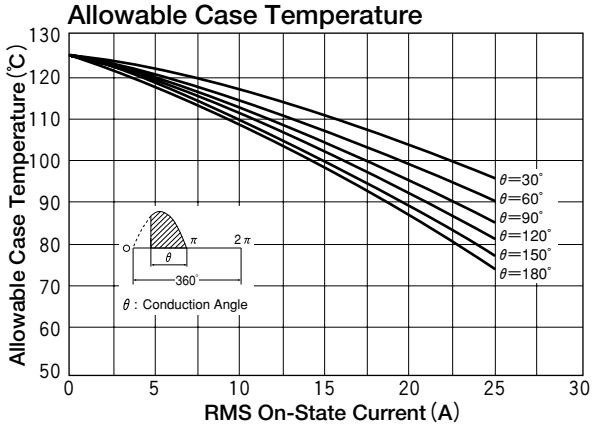
On-State Voltage



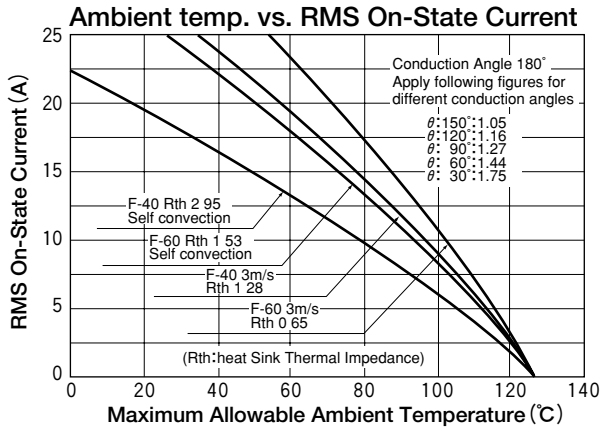
On State Current vs. Maximum Power Dissipation



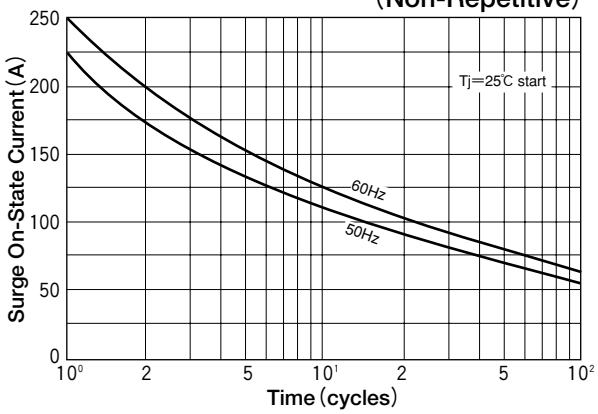
On State Current vs. Allowable Case Temperature



Ambient temp. vs. RMS On-State Current



Surge On-State Current Rating (Non-Repetitive)



Transient Thermal Impedance

