

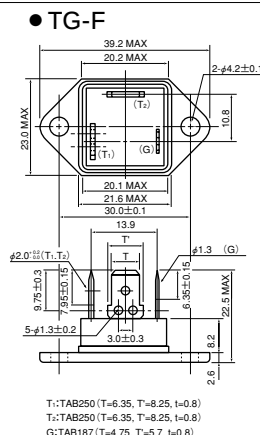
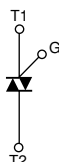
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TG35F

UL:E76102(M)

TG35F are isolated molded triacs suitable for wide range of applications like copier, microwave oven, solid state switch, motor control, light control and heater control].

- IT(AV) 35A
- High surge capability 340A
- Isolated Mounting (AC2500V)
- Tab Terminals



Unit : mm

■ Maximum Ratings

(Ti=25°C unless otherwise specified)

Symbol	Item	Ratings		Unit
		TG35F40	TG35F60	
V _{DRM}	Repetitive Peak Off-State Voltage	400	600	V

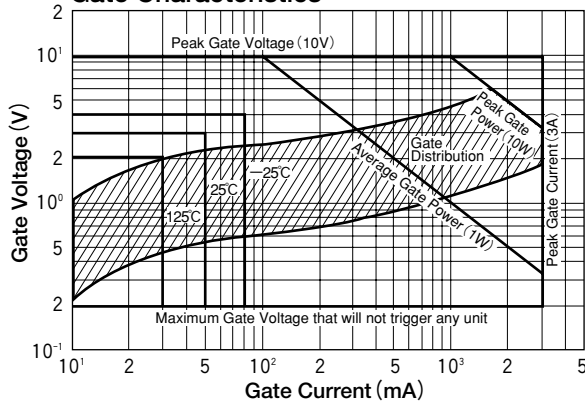
Symbol	Item	Conditions	Ratings	Unit
$I_{T(RMS)}$	R.M.S. On-State Current	$T_c=67^{\circ}C$	35	A
I_{TSM}	Surge On-State Current	One cycle, 50Hz/60Hz, peak, non-repetitive	310/340	A
I^2t	I^2t	Value for one cycle of surge current	485	A^2S
P_{GM}	Peak Gate Power Dissipation		10	W
$P_{G(AV)}$	Average Gate 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	$I_G=100mA, T_j=25^{\circ}C, V_D=\frac{1}{2}V_{DRM}, dI_G/dt=1A/\mu s$	50	$A/\mu s$
T_j	Operating Junction Temperature		-25 to +125	$^{\circ}C$
T_{stg}	Storage Temperature		-40 to +125	$^{\circ}C$
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)	$N \cdot m$ ($kgf \cdot cm$)
	Mass	Typical value (Excluding bolt, nut and wrapping material)	23	g

■ Electrical Characteristics

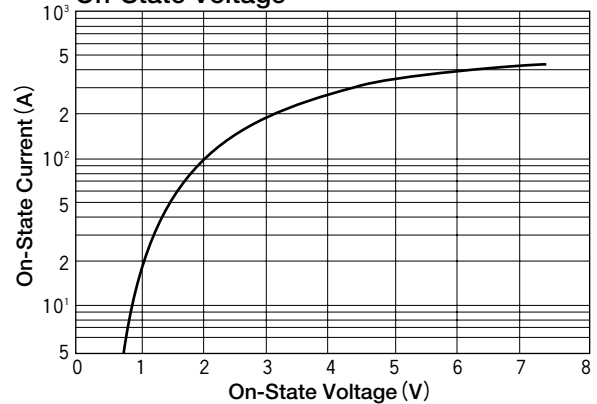
Symbol	Item	Conditions	Ratings	Unit
I_{DRM}	Reptitive Peak Off-State Current, max	$V_D=V_{DRM}$, Single phase, half wave, $T_j=125^{\circ}\text{C}$	3	mA
V_{TM}	Peak On-State Voltage, max	On-State Current $[\sqrt{2} \times I_{T(RMS)}]$, Inst. measurement	1.38	V
I_{GT1}^{+}	1	Gate Trigger Current, max $T_j=25^{\circ}\text{C}$, $I_T=1\text{A}$, $V_D=6\text{V}$	50	mA
I_{GT1}^{-}	2		50	
I_{GT3}^{+}	3		—	
I_{GT3}^{-}	4		50	
V_{GT1}^{+}	1	Gate Trigger Voltage, max $T_j=25^{\circ}\text{C}$, $I_T=1\text{A}$, $V_D=6\text{V}$	2.5	V
V_{GT1}^{-}	2		2.5	
V_{GT3}^{+}	3		—	
V_{GT3}^{-}	4		2.5	
V_{GD}	Non-Trigger Gate Voltage, min	$T_j=125^{\circ}\text{C}$, $V_D=\frac{1}{2}V_{DRM}$	0.2	V
tgt	Turn On Time, max.	$I_{T(RMS)}$, $I_G=100\text{mA}$, $V_D=\frac{1}{2}V_{DRM}$, $T_j=25^{\circ}\text{C}$, $di/dt=1\text{A}/\mu\text{s}$	10	V
dv/dt	Critical Rate of Rise on-State Voltage,min.	$T_j=125^{\circ}\text{C}$, $V_D=\frac{2}{3}V_{DRM}$, Exponential wave.	100	$\text{V}/\mu\text{s}$
$[dv/dt]_c$	Critical Rate of Rise off-State Voltage at commutation, min	$T_j=125^{\circ}\text{C}$, $V_D=\frac{2}{3}V_{DRM}$, $[di/dt]_c=15\text{A}/\text{ms}$	10	$\text{V}/\mu\text{s}$
I_H	Holding Current, typ.	$T_j=25^{\circ}\text{C}$	30	mA
$R_{th}(i-c)$	Thermal Impedance, max	Junction to case	1.5	$^{\circ}\text{C}/\text{W}$

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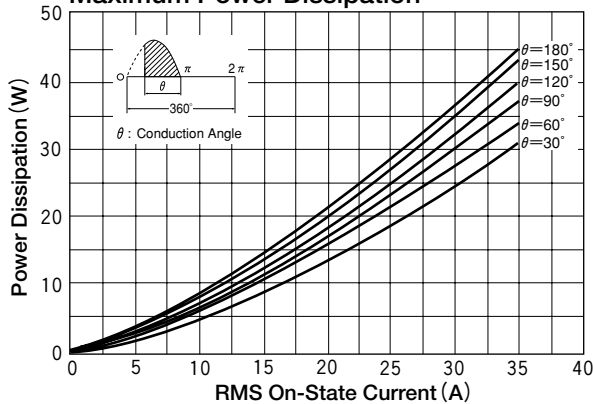
Gate Characteristics



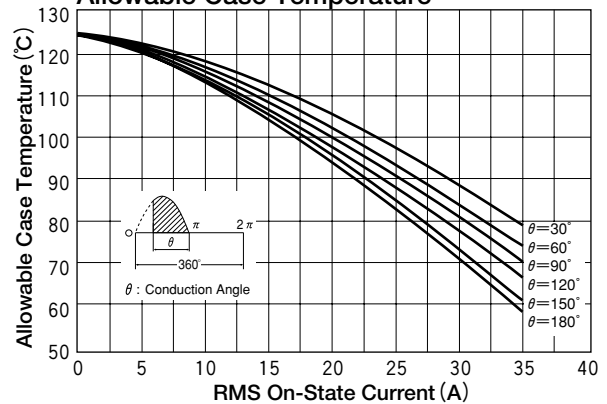
On-State Voltage



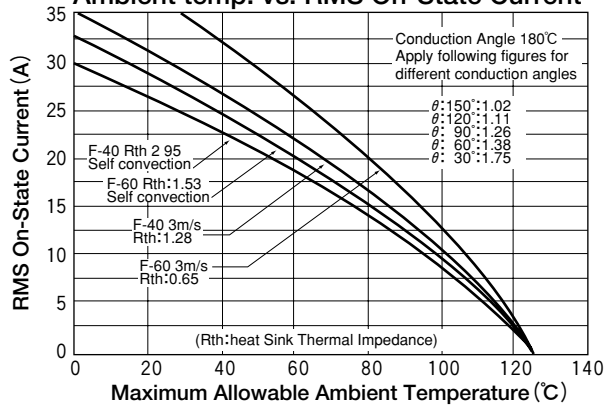
On State Current vs. Maximum Power Dissipation



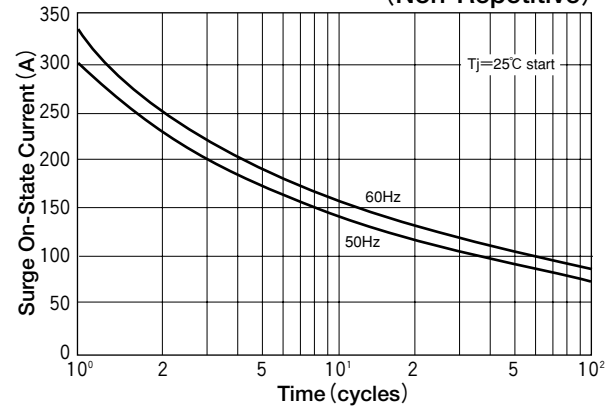
On State Current vs. Allowable Case Temperature



Ambient temp. vs. RMS On-State Current



Surge On-State Current Rating (Non-Repetitive)



Transient Thermal Impedance

