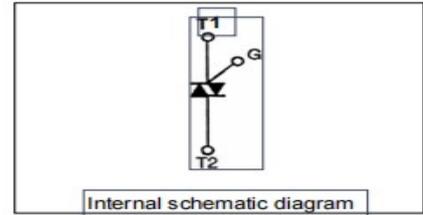
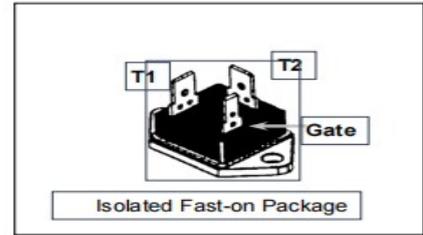


TG60 Series 60A TRIACs

MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	60	A
V_{ISO}	2500	V
V_{DRM} / V_{RRM}	600 and 800 and 1200 and 1600	V



ABSOLUTE MAXIMUM RATINGS

Parameter		Symbol	Value	Unit
Storage temperature range		T_{stg}	-40-150	°C
Operating junction temperature range		T_j	-40-125	°C
Repetitive peak off-state voltage ($T_j=25^{\circ}C$)		V_{DRM}	600 /800/1200/1600	V
Repetitive peak reverse voltage ($T_j=25^{\circ}C$)		V_{RRM}	600 /800/1200/1600	V
Non repetitive surge peak Off-state voltage		V_{DSM}	$V_{DRM} +100$	V
Non repetitive peak reverse voltage		V_{RSM}	$V_{RRM} +100$	V
RMS on-state current	TG-C ($T_c=90^{\circ}C$)	$I_{T(RMS)}$	60	A
Non repetitive surge peak on-state current (full cycle, F=50Hz)		I_{TSM}	600	A
I^2t value for fusing ($t_p=10ms$)		I^2t	3200	A^2s
Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$)		di/dt	100	$A/\mu s$
Peak gate current		I_{GM}	8	A
Average gate power dissipation		$P_{G(AV)}$	2	W
Peak gate power		P_{GM}	10	W
Insulation voltage(A.C,F=50Hz,1min)		V_{ISO}	2500	V

ELECTRICAL CHARACTERISTICS ($T_J=25^\circ\text{C}$ unless otherwise specified)

Symbol	Test Condition	Quadrant		Value	Unit
I_{GT}	$V_D=12\text{V } R_L=33\Omega$	I - II - III	MAX	50	mA
V_{GT}		I - II - III	MAX	1.3	V
V_{GD}	$V_D=V_{DRM} T_J=125^\circ\text{C}$ $R_L=3.3\text{K}\Omega$	I - II - III	MIN	0.2	V
I_L	$I_G=1.2I_{GT}$	I - III	MAX	80	mA
		II		100	
I_H	$I_T=100\text{mA}$		MAX	60	mA
dV/dt	$V_D=2/3V_{DRM}$ Gate Open $T_J=125^\circ\text{C}$		MIN	1000	V/ μs
(dV/dt) _c	Without snubber $T_J=125^\circ\text{C}$		MIN	20	V/ μs

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX)	Unit
V_{TM}	$I_{TM}=90\text{A } t_P=380\mu\text{s}$	$T_J=25^\circ\text{C}$	1.55	V
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_J=25^\circ\text{C}$	10	μA
I_{RRM}		$T_J=125^\circ\text{C}$	10	mA

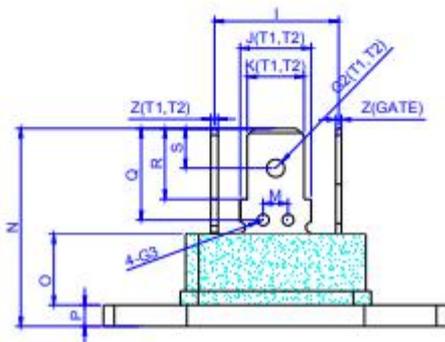
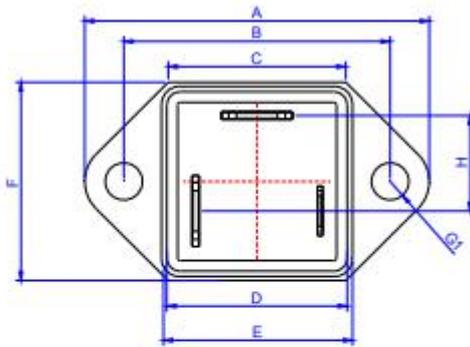
THERMAL RESISTANCES

Symbol	Parameter		Value	Unit
$R_{th(j-c)}$	junction to case(AC)	TG-C	0.45	$^\circ\text{C/W}$

ORDERING INFORMATION

<p>TG 60 C 80</p> <p>Triacs</p> <p>$I_{T(RMS)}: 60\text{A}$</p> <p>C: TG-C</p>	<p>60: $V_{DRM}/V_{RRM} \geq 600\text{V}$ 80: $V_{DRM}/V_{RRM} \geq 800\text{V}$ 120: $V_{DRM}/V_{RRM} \geq 1200\text{V}$ 160: $V_{DRM}/V_{RRM} \geq 1600\text{V}$</p>
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PACKAGE MECHANICAL DATA



A			39.2			1.543
B	29.8	30.0	30.2	1.173	1.181	1.189
C			20.2			0.795
D			20.5			0.807
E			21.6			0.85
F			23			0.905
G1	Φ4.1	Φ4.2	Φ4.3	Φ0.161	Φ0.165	Φ0.169
H		10.3			0.406	
I		13.9			0.547	
J(T1,T2)		8			0.315	
K(T1,T2)		6.4			0.252	
M	2.7	3.0	3.3	0.106	0.118	0.130
N			22.8			0.898
O		8.2			0.323	
P		2.5			0.098	
Q	9.45	9.75	10.1	0.374	0.383	0.398
R	7.8	7.95	8.1	0.307	0.313	0.319
S	4.3	4.5	4.7	0.169	0.177	0.185
Z(T1,T2)	0.78	0.8	0.85	0.0307	0.0315	0.0335
G2(T1,T2)		Φ2	Φ2.2		Φ0.079	Φ0.087
G3	Φ1.1	Φ1.3	Φ1.5	Φ0.043	Φ0.051	Φ0.059
G4		Φ1.55	Φ1.75		Φ0.061	Φ0.069
a	2.95	3.15	3.35	0.116	0.124	0.132
b	6.2	6.35	6.5	0.244	0.25	0.256
c	9.35	9.75	10	0.368	0.384	0.393
Z(GATE)	0.58	0.6	0.65	0.0228	0.0236	0.0256
J(GATE)		5.6			0.221	

EKOWEISS Semiconductors

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