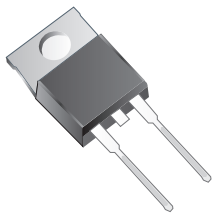
CGR860T-G

Reverse Voltage: 600 V
Forward Current: 8.0 A
RoHS Device



Features

-Soft recovery characteristic.

-Low forward voltage.

-Low recovery loss.

-High surge current capability.

Mechanical Data

-Case: TO-220AC, molded plastic.

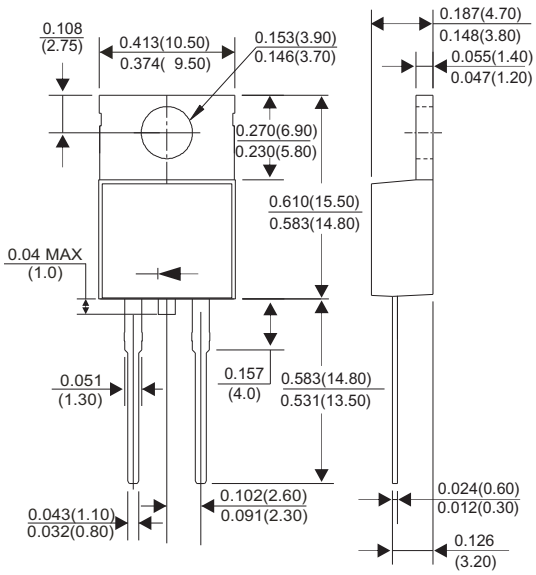
-Epoxy: UL 94V-0 rate flame retardant.

-Polarity: As marked on the body.

-Mounting position: Any

-Weight: 2.14 grams

TO-220AC



Dimensions in inches and (millimeter)

Maximun Ratings (at T_J=25°C unless otherwise noted)

Parameter		Symbol	CGR860T-G	Unit
Repetitive Peak Reverse Voltage		V_{RRM}	600	V
Average Rectified Forward Current	@ T_J= 110°C	$I_{F(AV)}$	8	A
Non-Repetitive Surge Forward Current T_P = 10ms(50HZ) Sine Wave	@ T_J= 25°C	I_{FSM}	110	A
Avalanche Energy with Single Pulse (L=40mH)		E_{AS}	80	mJ
Maximum Power Dissipation		P_D	50	W
Junction-to-Case Thermal Resistance, Per Leg		$R_{\theta JC}$	2.5	°C/W
Junction-to Ambient Thermal Resistance, Per Leg		$R_{\theta JA}$	70	°C/W
Operating Junction and Storage Temperatures		T_J, T_{STG}	-55 to +150	°C

Electrical Characteristics and Curves (at T_J=25°C unless otherwise noted)

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Breakdown Voltage	I_R = 100μA	V_{BR}	600			V
Forward Voltage	I_F = 8A	V_F		1.7	2.1	V
	I_F = 8A , T_J = 125°C	V_F		1.4	1.9	V
Reverse Leakage Current	V_R = 600V	I_R			10	μA
	V_R = 600V , T_J = 125°C	I_R			250	μA

Dynamic Recovery Characteristics

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Reverse Recovery Time	I_F = 1A , V_R = 30V , dI_F/dt = -200A/μs	t_{rr}		18	28	ns
Reverse Recovery Time	I_F = 8A , V_R = 300V dI_F/dt = -200A/μs	t_{rr}		22		ns
Peak Recovery Current		I_{RRM}		2.5		A
Reverse Recovery Charge		Q_{rr}		28		nC
Reverse Recovery Time	I_F = 8A , V_R = 300V dI_F/dt = -200A/μs , T_J=125°C	t_{rr}		48		ns
Peak Recovery Current		I_{RRM}		5.5		A
Reverse Recovery Charge		Q_{rr}		135		nC

RATING AND CHARACTERISTIC CURVES (CGR860T-G)

FIG.1 - Average Forward Current vs. Max. Allowable Cace Temperature

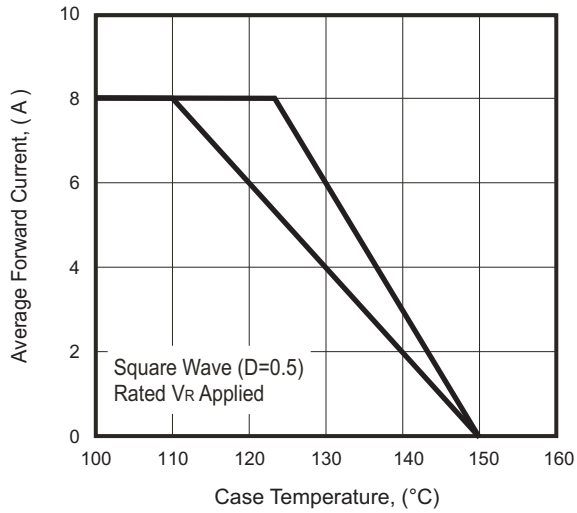


FIG.2 - Typical Junction Capacitance vs. Reverse Voltage

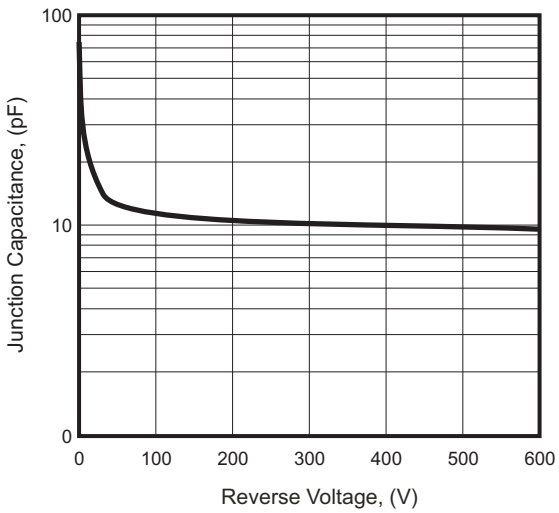


FIG.3 - Typical Value of Reverse Current vs. Reverse Voltage

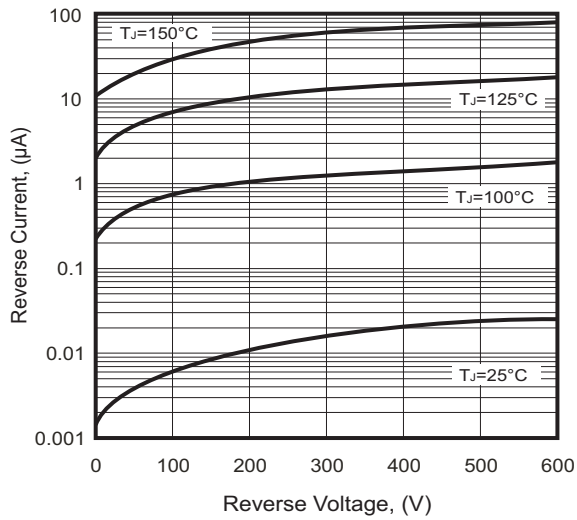
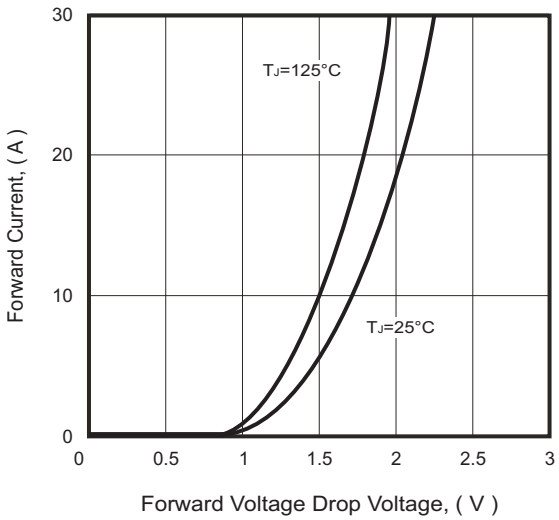
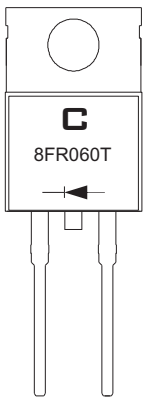


FIG.4 - Typical Forward Voltage Drop Characteristics



Marking Code

Part Number	Marking code
CGR860T-G	8FR060T



⊏ = Compchip Logo

Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
TO-220AC	50	2,000