

3875081 G E SOLID STATE
Silicon Controlled Rectifiers

01E 17704 D T-25-13

C106 Series

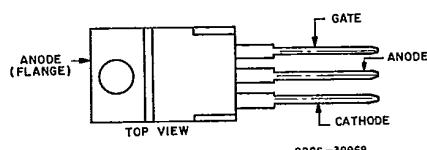
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4-A Sensitive-Gate Silicon Controlled Rectifiers

For Power-Switching and Control Application

Features:

- 3.5-A(rms) on-state current ratings
- 20-A peak surge capability
- Glass-passivated chip for stability
- Formed-lead options available

TERMINAL DESIGNATIONS

JEDEC TO-220AB

The RCA-C106 series of sensitive-gate silicon controlled rectifiers are designed for switching ac and dc currents. The types within the series differ in their voltage ratings; the voltage ratings are identified by suffix letters in type designations.

These SCR's have microampere gate-current requirements which permit operation with low-level logic circuits. They

can be used for lighting, power-switching, and motor-speed controls, and for gate-current amplification for driving large SCR's.

All types in the series utilize the JEDEC-TO-202AB (RCA VERSATAB) plastic package.

MAXIMUM RATINGS, Absolute-Maximum Values:

	C106F	C106A	C106B	C106C	C106D	C106E	C106M	C106S	C106N	
V_{PRM} $R_{GK} = 1000 \Omega$, $T_C = -40$ to 110°C	50	100	200	300	400	500	600	700	800	V
V_{DRM} $R_{GK} = 1000 \Omega$, $T_C = -40$ to 110°C						2.2				A
$I_{T(AV)}$ ($T_C = 45^\circ\text{C}$)						3.5				A
$I_{T(RMS)}$ ($T_C = 45^\circ\text{C}$)						2.6				A
$I_{T(DC)}$ ($T_C = 70^\circ\text{C}$)										
I_{TSM} For one cycle of applied principal voltage, $T_C = 45^\circ\text{C}$										
60 Hz (sinusoidal)						20				A
50 Hz (sinusoidal)						18.5				A
I_{GM} ($t = 10 \mu\text{s}$)						0.2				A
V_{GRM} dI/dt :						6				V
$V_{DM} = V_{DRM}$, $I_G = 1 \text{ mA}$, $t_g = 0.5 \mu\text{s}$, $T_C = 110^\circ\text{C}$						100				A/ μs
I^2t [At T_C shown for $I_{T(RMS)}$]:										
$t = 10 \text{ ms}$						1.77				A ^2s
8.33 ms						1.67				A ^2s
1 ms						0.82				A ^2s
P_{GM} (For 10 μs max.)						0.5				W
$P_{G(AV)}$ (Averaging time = 10 ms max.)						0.1				W
T_{Gd}						-40 to +150				°C
T_C						-40 to +110				°C
T_T (During soldering for 10 s max.)						250				°C