

3875081 G E SOLID STATE  
Silicon Controlled Rectifiers

01E 17704 D T-25-13

C106 Series

File Number 1005

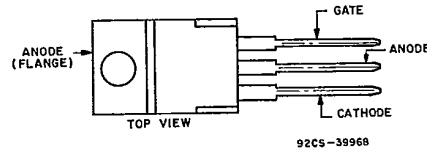
### 4-A Sensitive-Gate Silicon Controlled Rectifiers

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	
$V_{RRM}$ $R_{GK} = 1000 \Omega, T_C = -40 \text{ to } 110^\circ\text{C}$	50	100	200	300	400	500	600	700	800	V
$V_{DRM}$ $R_{GK} = 1000 \Omega, T_C = -40 \text{ to } 110^\circ\text{C}$										A
$I_{T(AV)}$ ( $T_C = 45^\circ\text{C}$ )										A
$I_{T(RMS)}$ ( $T_C = 45^\circ\text{C}$ )										A
$I_{T(DC)}$ ( $T_C = 70^\circ\text{C}$ )										A
$I_{TSM}$ For one cycle of applied principal voltage, $T_C = 45^\circ\text{C}$										A
60 Hz (sinusoidal)										A
50 Hz (sinusoidal)										A
$I_{GM}$ ( $t = 10 \mu\text{s}$ )										V
$V_{GRM}$ $di/dt$										A/ $\mu\text{s}$
$V_{DM} = V_{DRM}, I_G = 1 \text{ mA}, t_r = 0.5 \mu\text{s}, T_C = 110^\circ\text{C}$										A/ $\mu\text{s}$
$t^2$ [At $T_C$ shown for $I_{T(RMS)}$ ]:										A <sup>2</sup> s
t = 10 ms										A <sup>2</sup> s
8.33 ms										A <sup>2</sup> s
1 ms										W
$P_{GM}$ (For 10 $\mu\text{s}$ max.)										W
$P_{G(AV)}$ (Averaging time = 10 ms max.)										W
$T_{sig}$										$^\circ\text{C}$
$T_C$										$^\circ\text{C}$
$T_T$ (During soldering for 10 s max.)										$^\circ\text{C}$