

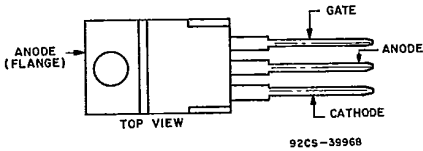
4-A Sensitive-Gate Silicon
Controlled Rectifiers

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
$I_T(RMS)$ ($T_C = 45^\circ\text{C}$)					2.2					A
$I_T(RMS)$ ($T_C = 45^\circ\text{C}$)					3.5					A
$I_T(OC)$ ($T_C = 70^\circ\text{C}$)					2.6					A
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}					6					V
di/dt : $V_{DM} = V_{DRM}, I_G = 1 \text{ mA}, t_r = 0.5 \mu\text{s}, T_C = 110^\circ\text{C}$					100					A/ μs
I^2t [At T_C shown for $I_T(RMS)$]: $t = 10 \text{ ms}$					1.77					A ² s
8.33 ms					1.67					A ² s
1 ms					0.82					A ² s
P_{GM} (For 10 μs max.)					0.5					W
$P_{G(AV)}$ (Averaging time = 10 ms max.)					0.1					W
T_{slg}					-40 to +150					°C
T_C					-40 to +110					°C
T_T (During soldering for 10 s max.)					250					°C