

# CN3A - CN3M

# CELL RECTIFIER DIODES

**PRV : 50 - 1000 Volts**

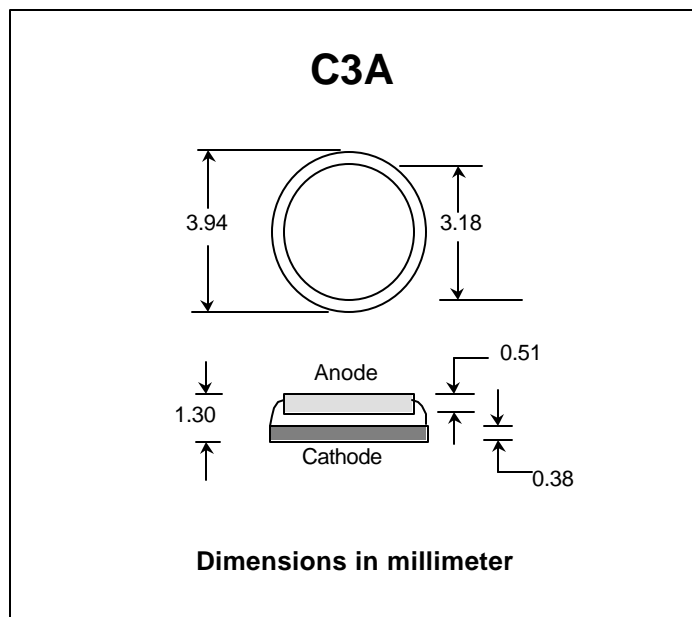
**Io : 3.0 Amperes**

## FEATURES :

- \* High current capability
- \* High surge current capability
- \* High reliability
- \* Low reverse current
- \* Low forward voltage drop
- \* Chip form

## MECHANICAL DATA :

- \* Case : C3A
- \* Terminals : Solderable per MIL-STD-202, Method 208 guaranteed
- \* Polarity : Cathode to bigger size slug, For Anode to bigger size slug use "R" suffix.
- \* Mounting position : Any
- \* Weight : 0.11 gram



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.  
Single phase, half wave, 60 Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

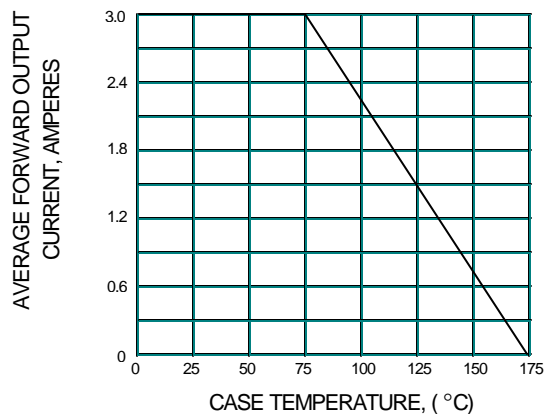
RATING	SYMBOL	CN3A	CN3B	CN3D	CN3G	CN3J	CN3K	CN3M	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Current $T_c = 75^\circ C$	$I_{F(AV)}$	3.0							Amps.
Peak Forward Surge Current Single half sine wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	200							Amps.
Maximum Forward Voltage at $I_F = 3$ Amps.	$V_F$	1.1							Volts
Maximum DC Reverse Current $T_a = 25^\circ C$ at rated DC Blocking Voltage $T_a = 100^\circ C$	$I_R$	5.0							$\mu A$
	$I_{R(H)}$	1.0							mA
Typical Junction Capacitance (Note 1)	$C_J$	28							pF
Thermal Resistance, Junction to Case	$R_{\theta JC}$	15							$^\circ C/W$
Junction Temperature Range	$T_J$	- 65 to + 175							$^\circ C$
Storage Temperature Range	$T_{STG}$	- 65 to + 175							$^\circ C$

**Note :** (1) Measured at 1.0 MHz and applied reverse Voltage of 4.0 V<sub>DC</sub>

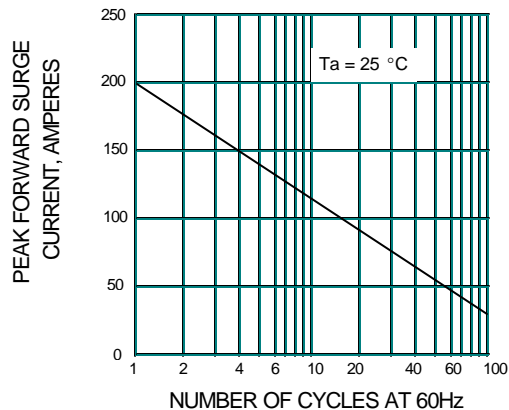
**UPDATE : APRIL 23. 1998**

## RATING AND CHARACTERISTIC CURVES ( CN3A - CN3M )

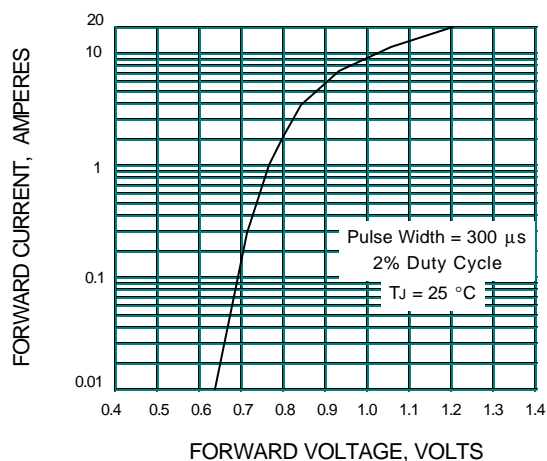
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



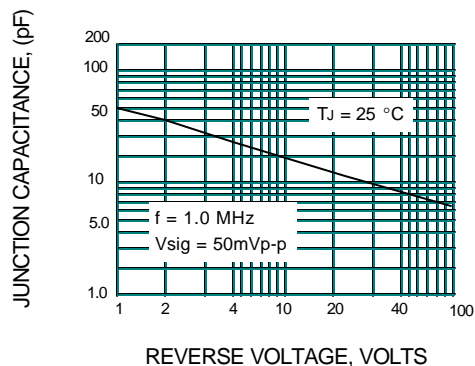
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL JUNCTION CAPACITANCE**



**FIG. 5 - TYPICAL REVERSE CHARACTERISTICS**

