

# CN18A - CN18M

**PRV : 50 - 1000 Volts**

**I<sub>o</sub> : 18 Amperes**

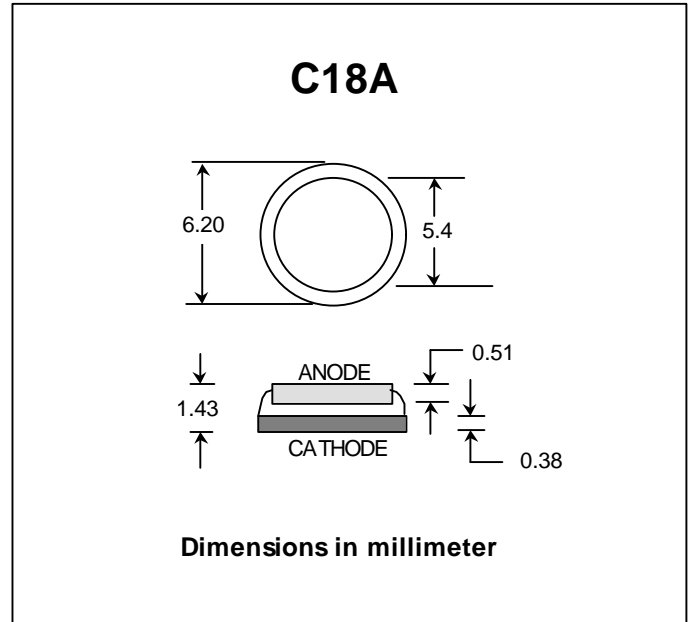
## FEATURES :

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

## MECHANICAL DATA :

- \* Case : C18A
- \* 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 : 0.29 gram

# CELL RECTIFIER DIODES



## 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%.

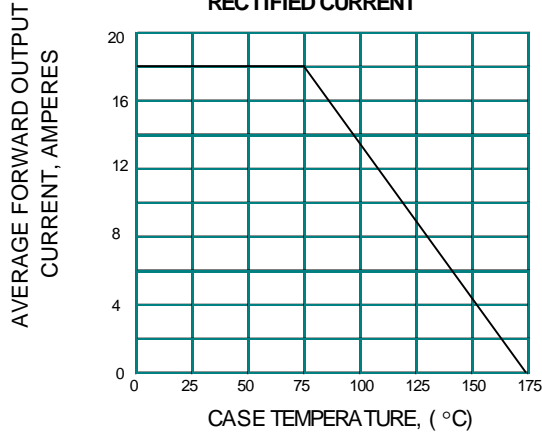
RATING	SYMBOL	CN18A	CN18B	CN18D	CN18G	CN18J	CN18K	CN18M	UNITS
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	50	100	200	400	600	800	1000	Volts
Maximum Average Forward Current T <sub>c</sub> = 75°C	I <sub>F(AV)</sub>	18							Amps
Peak Forward Surge Current Single half sine wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	400							Amps
Maximum Forward Voltage at I <sub>F</sub> = 18 Amps.	V <sub>F</sub>	1.1							Volts
Maximum DC Reverse Current T <sub>a</sub> = 25 °C at rated DC Blocking Voltage T <sub>a</sub> = 100 °C	I <sub>R</sub>	5.0							μA
	I <sub>R(H)</sub>	1.0							mA
Typical Junction Capacitance (Note 1)	C <sub>J</sub>	300							pF
Thermal Resistance, Junction to Case	R <sub>θJC</sub>	10							°C/W
Junction Temperature Range	T <sub>J</sub>	- 65 to + 175							°C
Storage Temperature Range	T <sub>STG</sub>	- 65 to + 175							°C

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

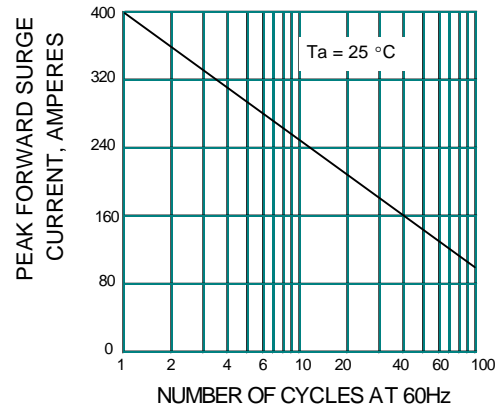
**UPDATE : APRIL 23, 1998**

**RATING AND CHARACTERISTIC CURVES ( CN18A - CN18M )**

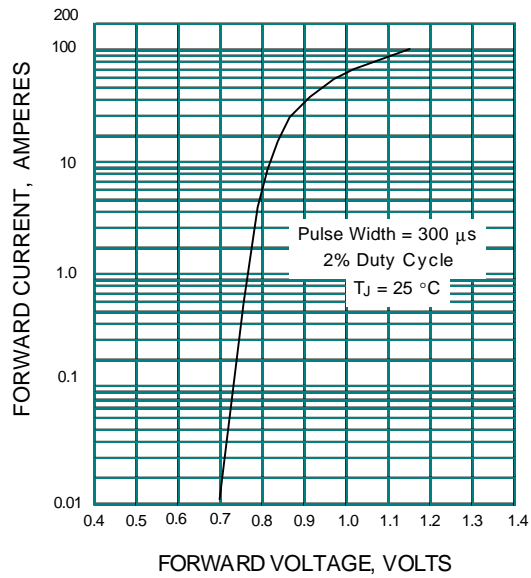
**FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT**



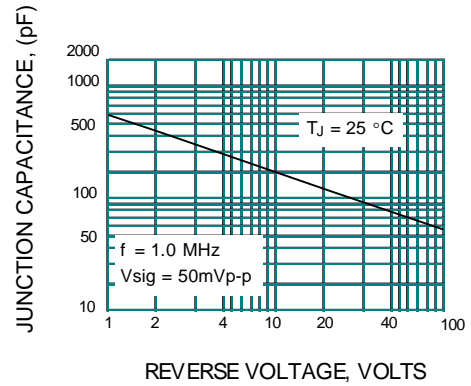
**FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 - TYPICAL JUNCTION CAPACITANCE**



**FIG.5 - TYPICAL REVERSE CHARACTERISTICS**

