沛倫股份有限公司
Compact Technology Corp.

# CT2A01 thru CT2A07

**PLASTIC SILICON RECTIFIERS**

REVERSE VOLTAGE **- 50** to **1000** Volts
FORWARD CURRENT **- 2.0** Ampere

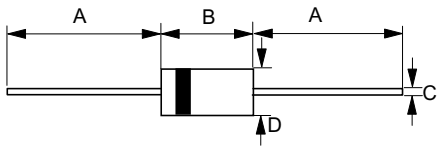
## FEATURES

- Low cost
- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- The plastic material carries UL recognition 94V-0

## MECHANICAL DATA

- Case : JEDEC DO-15 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.015 ounces, 0.4 grams
- Mounting position : Any

**DO-15**




| | DO-15 | |
|---|---|---|
| Dim. | Min. | Max. |
| A | 25.4 | - |
| B | 5.80 | 7.60 |
| C | 0.70 ∅ | 0.90 ∅ |
| D | 2.60 ∅ | 3.60 ∅ |
| All Dimensions in millimeter | | |

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| CHARACTERISTICS | SYMBOL | CT2A01 | CT2A02 | CT2A03 | CT2A04 | CT2A05 | CT2A06 | CT2A07 | UNIT |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| Maximum Average Forward Rectified Current @$T_A$=75℃ | $I_{(AV)}$ | 2.0 | | | | | | | A |
| Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method) | $I_{FSM}$ | 60 | | | | | | | A |
| Maximum forward Voltage at 2.0A DC | $V_F$ | 1.1 | | | | | | | V |
| Maximum DC Reverse Current @$T_J$=25℃ at Rated DC Blocking Voltage @$T_J$=100℃ | $I_R$ | 5<br>50 | | | | | | | uA |
| Typical Junction Capacitance (Note 1) | $C_J$ | 15 | | | | | | | pF |
| Typical Thermal Resistance (Note 2) | $R_{\theta JA/JC}$ | 30/20 | | | | | | | ℃/W |
| Operating Temperature Range | $T_J$ | -55 to +150 | | | | | | | ℃ |
| Storage Temperature Range | $T_{STG}$ | -55 to +150 | | | | | | | ℃ |

NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2.Thermal Resistance Junction to Ambient and Junction to Case.

## RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

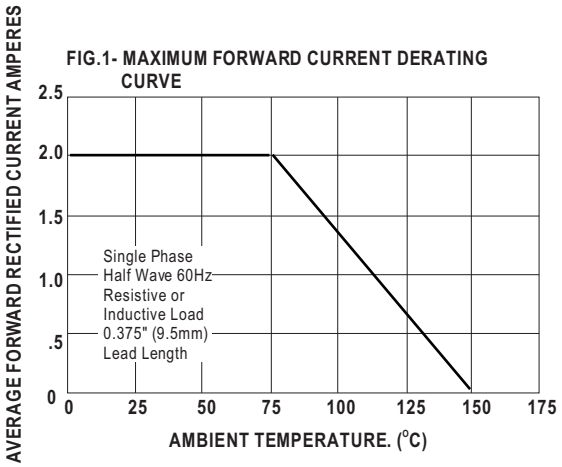



FIG.2- TYPICAL FORWARD CHARACTERISTICS

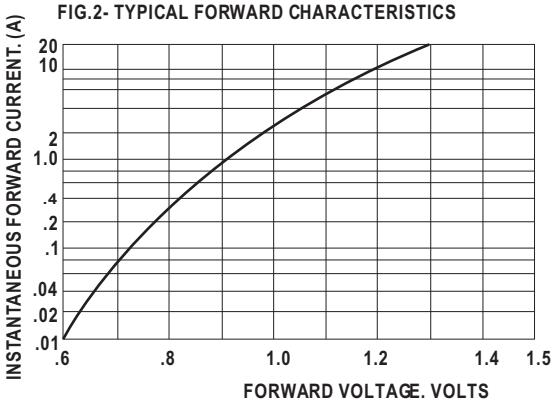



FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

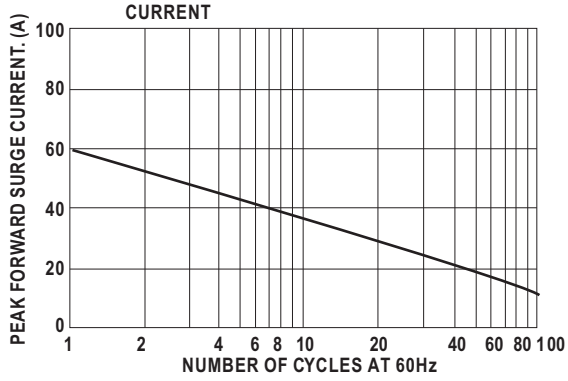



FIG.4- TYPICAL REVERSE CHARACTERISTICS

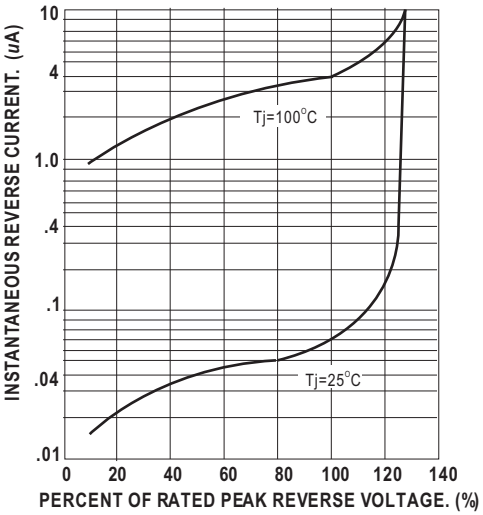



FIG.5- TYPICAL JUNCTION CAPACITANCE