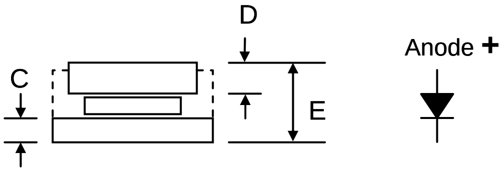
WTE
POWER SEMICONDUCTORS

# C25A – C25K

## 25A AUTOMOTIVE CELL DIODE

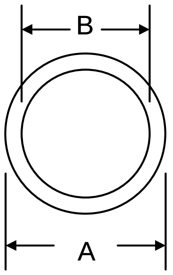
## Features

- Diffused Junction
- Low Leakage
- Low Cost
- High Surge Current Capability
- Die Size 164 mil HEX



## Mechanical Data

- Case: Cell Diode Passivated with Silicon Rubber
- Terminal: Copper Disc with Ag Plated
- Polarity: Indicated by Large Disc On Cathode Side, Add “R” Suffix to Indicate Reverse Polarity, i.e. C25AR
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 2**



| C25 | | |
|---|---|---|
| **Dim** | **Min** | **Max** |
| **A** | — | 5.70 |
| **B** | — | 4.82 |
| **C** | 0.75 | — |
| **D** | 1.0 | — |
| **E** | — | 2.2 |
| **All Dimensions in mm** | | |

## Maximum Ratings and Electrical Characteristics @$T_A$=25℃ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | C25A | C25B | C25D | C25G | C25J | C25K | Unit |
|---|---|---|---|---|---|---|---|---|
| Peak Repetitive Reverse Voltage<br>Working Peak Reverse Voltage<br>DC Blocking Voltage | $V_{RRM}$<br>$V_{RWM}$<br>$V_R$ | 50 | 100 | 200 | 400 | 600 | 800 | V |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 35 | 70 | 140 | 280 | 420 | 560 | V |
| Average Rectified Output Current @$T_C$ = 150℃ | $I_O$ | 25 | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | $I_{FSM}$ | 400 | | | | | | A |
| Forward Voltage @$I_F$ = 50A | $V_{FM}$ | 1.08 | | | | | | V |
| Peak Reverse Current<br>At Rated DC Blocking Voltage @$T_A$ = 25℃ | $I_{RM}$ | 3.0 | | | | | | µA |
| Typical Thermal Resistance Junction to Ambient | R | | | | | | | |