

## 650V CoolSET™

### Product Highlights

#### 650V Fixed Frequency CoolSET™

- 650V avalanche rugged CoolMOS™ with startup cell
- Active Burst Mode to reach the lowest Standby Power Requirements <50mW
- Auto Restart protection for overload, overtemperature, overvoltage
- External auto-restart enable function
- Built-in soft start and blanking window
- Extendable blanking Window for high load jumps
- Built-in frequency jitter and soft driving for low EMI
- Green Mould Compound
- Pb-free lead plating
- RoHS compliant

| Product      | Frequency <sub>(SW)</sub><br>[kHz] | V <sub>DS(breakdown)</sub><br>[V] | R <sub>DS(on)</sub><br>[Ω] | Power <sub>(Universal)</sub><br>[W] | Package |
|--------------|------------------------------------|-----------------------------------|----------------------------|-------------------------------------|---------|
| ICE3BR4765J  | 65                                 | 650                               | 4.7                        | 18                                  | DIP-8   |
| ICE3BR1765J  | 65                                 | 650                               | 1.7                        | 31                                  | DIP-8   |
| ICE3BR0665J  | 65                                 | 650                               | 0.6                        | 49                                  | DIP-8   |
| ICE3BR4765JZ | 65                                 | 650                               | 4.7                        | 18                                  | DIP-7   |
| ICE3BR1765JZ | 65                                 | 650                               | 1.7                        | 30                                  | DIP-7   |
| ICE3BR0665JZ | 65                                 | 650                               | 0.6                        | 47                                  | DIP-7   |
| ICE3BR4765JG | 65                                 | 650                               | 4.7                        | 17                                  | DSO-12  |
| ICE3A1065ELJ | 100                                | 650                               | 3.0                        | 16                                  | DIP-8   |
| ICE3A2065ELJ | 100                                | 650                               | 1.0                        | 28                                  | DIP-8   |
| ICE2QR4765   | –                                  | 650                               | 4.7                        | 19                                  | DIP-8   |
| ICE2QR1765   | –                                  | 650                               | 1.7                        | 33                                  | DIP-8   |
| ICE2QR0665   | –                                  | 650                               | 0.6                        | 50                                  | DIP-8   |

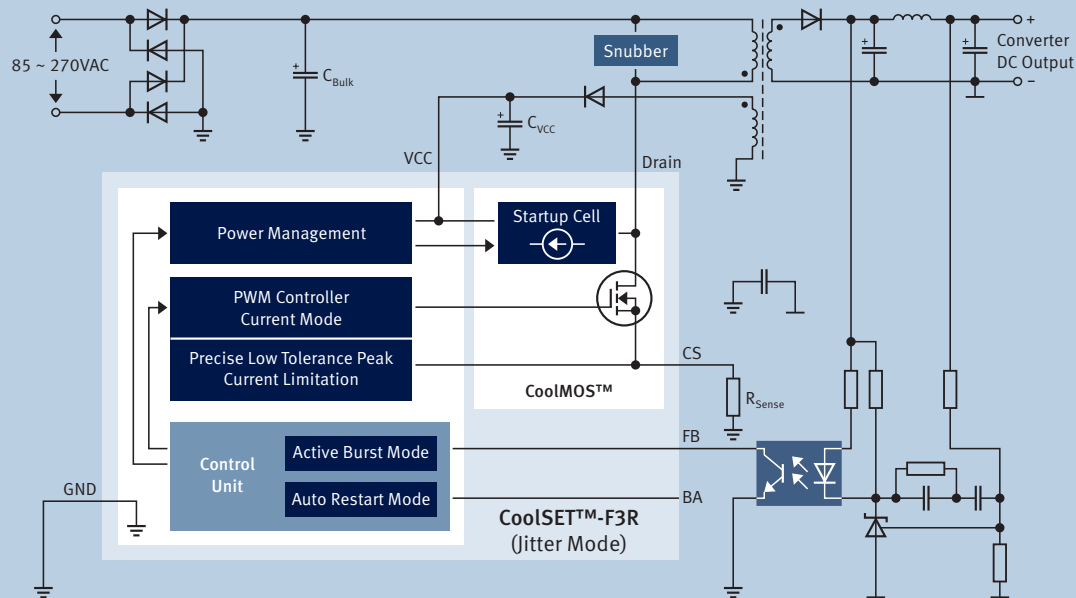
### Product Highlights

#### 650V Quasi-resonant CoolSET™

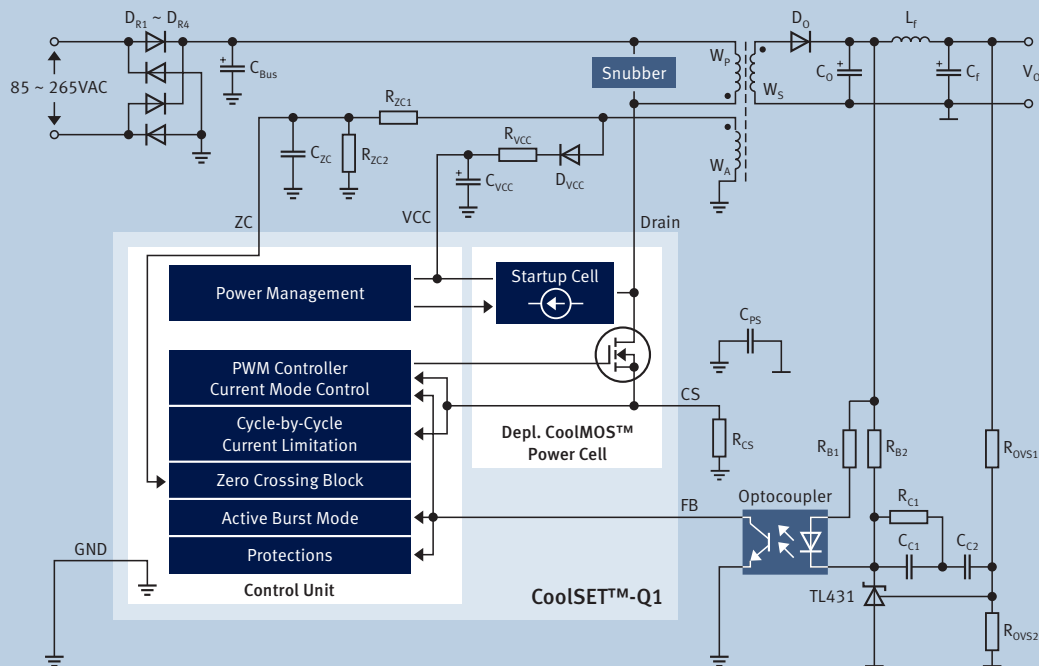
- 650V avalanche rugged CoolMOS™ with built-in startup cell
- Quasiresonant operation till very low load
- Active burst mode operation for low standby input power <0.1W
- Digital frequency reduction with decreasing load for reduced switching loss
- Built-in digital soft-start
- Foldback point correction and cycle-by-cycle peak current limitation
- Maximum on time limitation
- Auto restart mode for VCC Overvoltage and Undervoltage protections
- Auto restart mode for overload protection
- Auto restart mode for overtemperature protection
- Latch-off mode for adjustable output overvoltage protection and transformer short-winding protection

# 650V CoolSET™

Application Diagram – 650V Fixed Frequency CoolSET™



Application Diagram – 650V Quasi-resonant CoolSET™



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