

JEUR2006CL
EPI ULTRAFAST SOFT RECOVERY RECTIFIER

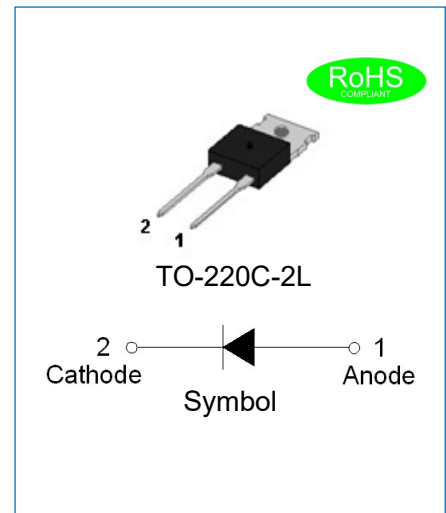
Rev.1.1

DESCRIPTION

- ✧ Plastic package has underwriters laboratory flammability classification 94V-0
- ✧ Lead free in comply with EU RoHS 2011/65/EU directives
- ✧ Low reverse leakage current
- ✧ Ultrafast recovery time and soft recovery characteristics
- ✧ Low recovery loss

MECHANICAL DATA

- ✧ Case: TO-220C-2L molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight:2 gram


ABSOLUTE MAXIMUM RATING (Rating at 25°C case temperature unless otherwise specified.)

| Parameter | Symbol | JEUR2006CL | Unit |
|--|----------------|-------------|------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 600 | V |
| Maximum RMS voltage | V_{RMS} | 420 | V |
| Maximum DC blocking voltage | V_{DC} | 600 | V |
| Maximum average forward current at $T_C=100^\circ\text{C}$ | $I_{F(AV)}$ | 20 | A |
| Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 200 | A |
| Peak forward surge current: 10ms single half sine-wave superimposed on rated load | | 180 | |
| Junction temperature and storage temperature range | T_j, T_{stg} | -55 to +150 | °C |

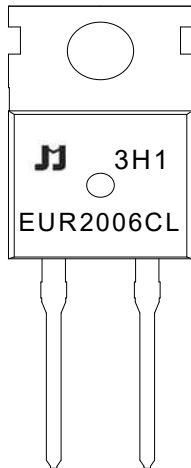
ELECTRICAL CHARACTERISTICS(Rating at 25°C case temperature unless otherwise specified.)

| Parameter | Symbol | Min. | Typ. | Max. | Unit | |
|---|---|----------|------|------|------|---------------|
| Maximum forward voltage | $I_F=20\text{A}, T_j=25^\circ\text{C}$ | V_F | - | - | 1.5 | V |
| Maximum DC reverse current at rated DC blocking voltage | $T_j=25^\circ\text{C}$ | I_R | - | - | 5 | μA |
| | $T_j=150^\circ\text{C}$ | | - | - | 300 | |
| Reverse recovery time | $I_F=0.5\text{A}, I_R=1\text{A}, I_{rr}=0.25\text{A}$ | t_{rr} | - | - | 50 | ns |

THERMAL RESISTANCES

| Symbol | Parameter | Min. | Typ. | Max. | Unit |
|---------------|--|------|------|------|------|
| $R_{th(j-c)}$ | Thermal resistance from junction to case | - | 3.0 | - | °C/W |

MARKING



| | |
|-----|----------------------------------|
| EUR | EPI Ultrafast Recovery Rectifier |
| 20 | $I_{F(AV)}=20A$ |
| 06 | $V_{RRM}:600V$ |
| CL | Package:TO-220C-2L |

$\underline{x}H1$: Month, 1、2、3 ~ 9、A、B、C

$3\underline{x}1$:

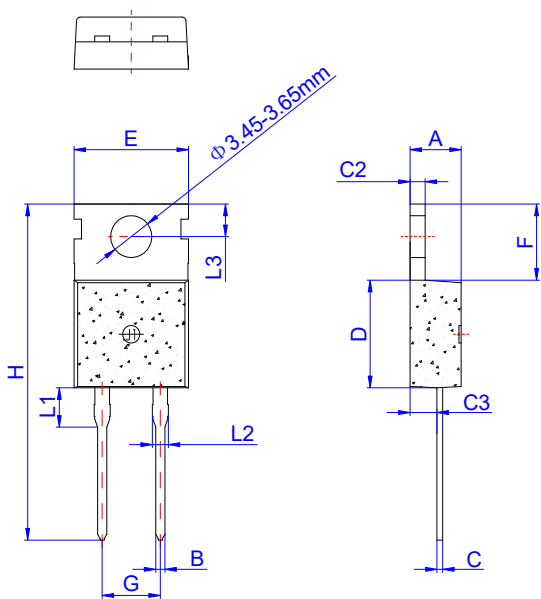
| | | | | | | |
|------|------|------|------|------|------|------|
| 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| H | I | J | K | L | M | N |
| 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | ... |
| O | P | Q | R | S | T | ... |

$3H\underline{x}$: Batch number

ORDERING INFORMATION

| | | | | | | |
|--|------------------------------|-----------------------|----------|------------------------------|-----------------------------|-------------------------------------|
| J JIEJIE Microelectronics | E Epi Ultrafast | U Rectifier | R | 20 $I_{F(AV)}=20A$ | 06 $V_{RRM}:600V$ | CL Package: TO-220C-2L |
|--|------------------------------|-----------------------|----------|------------------------------|-----------------------------|-------------------------------------|

PACKAGE MECHANICAL DATA



| Ref. | Dimensions | | | | | |
|--------|-------------|------|------|--------|-------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 4.40 | | 4.60 | 0.173 | | 0.181 |
| B | 0.70 | | 0.90 | 0.028 | | 0.035 |
| C | 0.45 | | 0.60 | 0.018 | | 0.024 |
| C2 | 1.23 | | 1.32 | 0.048 | | 0.052 |
| C3 | 2.20 | | 2.60 | 0.087 | | 0.102 |
| D | 8.90 | | 9.90 | 0.350 | | 0.390 |
| E | 9.90 | | 10.3 | 0.390 | | 0.406 |
| F | 6.30 | | 6.90 | 0.248 | | 0.272 |
| G | | 5.08 | | | 0.200 | |
| H | 28.0 | | 29.8 | 1.102 | | 1.173 |
| L1 | | 3.39 | | | 0.133 | |
| L2 | 1.14 | | 1.70 | 0.045 | | 0.067 |
| L3 | 2.65 | | 2.95 | 0.104 | | 0.116 |
| ϕ | | 3.6 | | | 0.142 | |

PACKAGE INFORMATION-TO-220C-2L

| OUTLINE | UNIT WEIGHT (g/PCS) typ. | TUBE (PCS) | PER CARTON (PCS) |
|---------|--------------------------|------------|------------------|
| TUBE | 2 | 50 | 5,000 |

CHARACTERISTICS CURVE

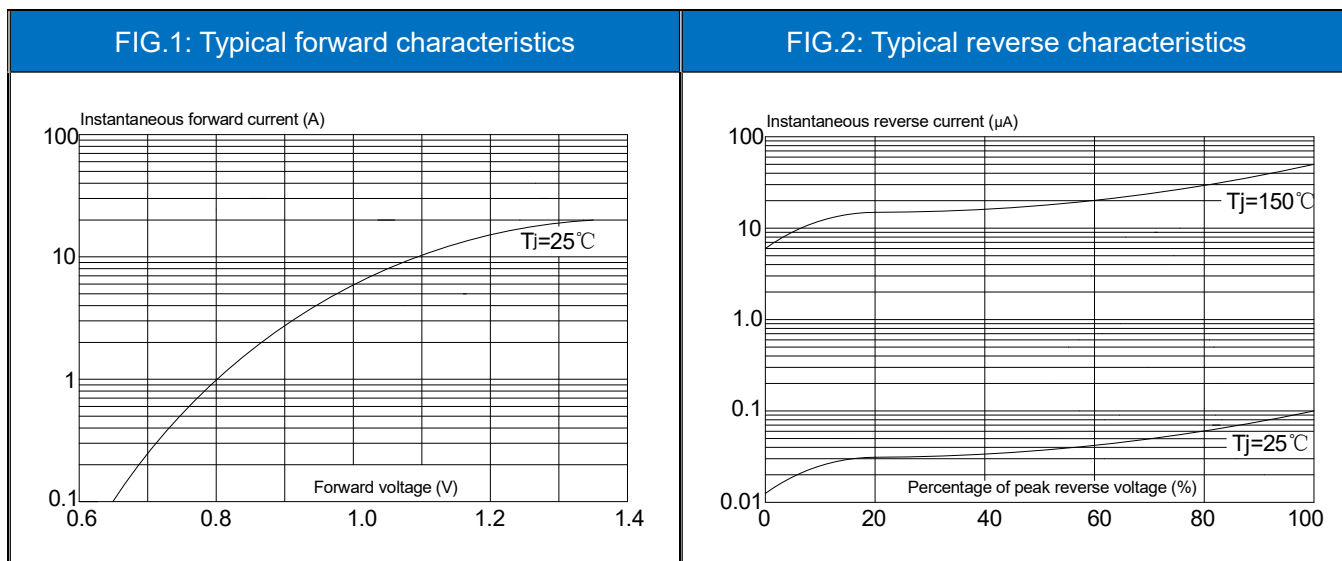


FIG.3: Maximum non-repetitive peak forward surge current(8.3ms single half sine-wave)

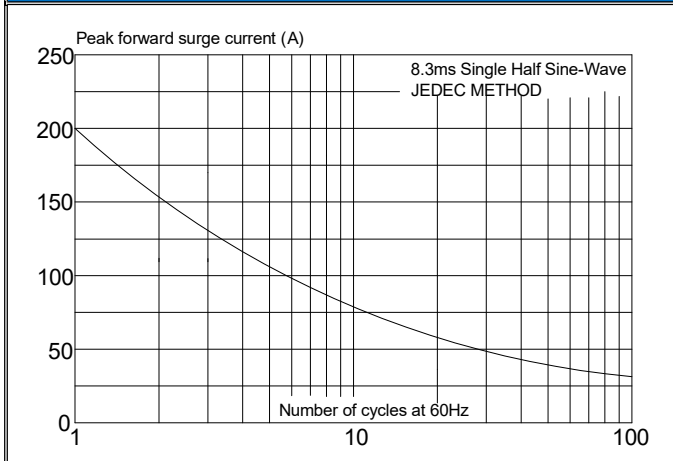


FIG.4: Maximum non-repetitive peak forward surge current(10ms single half sine-wave)

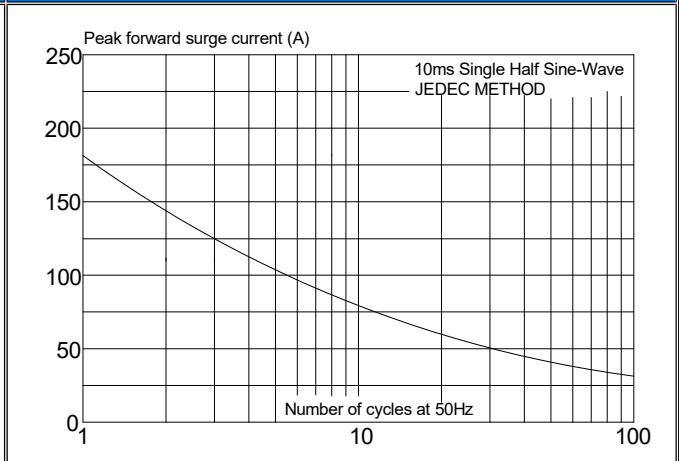
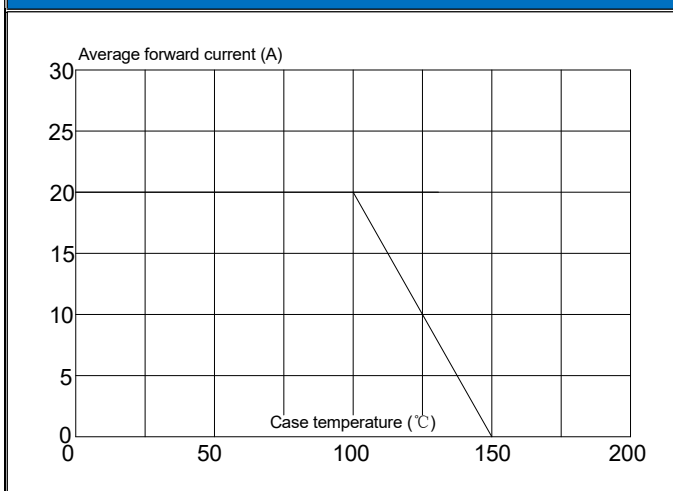


FIG.5: Forward current derating curve




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