



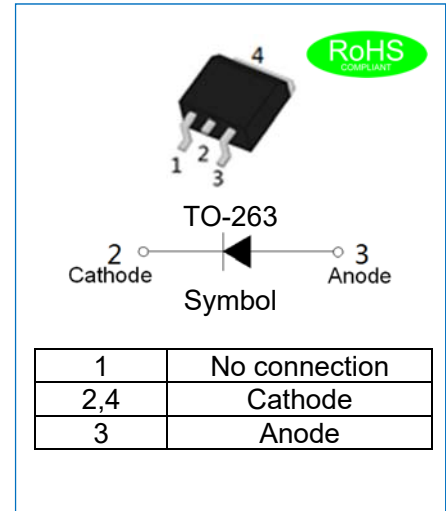
JEUR1506E

EPI ULTRAFAST RECOVERY RECTIFIER

Rev.1.7

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-263 molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 1.55 gram

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

| Parameter | Symbol | JEUR1506E | 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 |
| Average forward current at $T_C=100^\circ\text{C}$ | $I_{F(AV)}$ | 15 | A |
| Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 180 | A |
| Peak forward surge current: 10ms single half sine-wave superimposed on rated load | | 150 | |
| Junction temperature and storage temperature range | T_j, T_{stg} | -55 to +150 | °C |

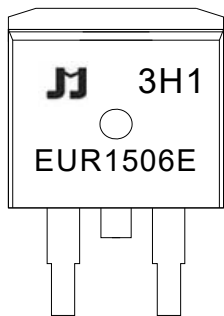
ELECTRICAL CHARACTERISTICS (Rating at 25°C ambient temperature unless otherwise specified.)

| Parameter | Symbol | Min. | Typ. | Max. | Unit |
|---|----------|-------------------------|------|------|------|
| Forward voltage at 15A | V_F | - | - | 1.5 | V |
| Reverse current at rated DC blocking voltage | I_R | $T_j=25^\circ\text{C}$ | - | 5 | uA |
| | | $T_j=150^\circ\text{C}$ | - | 300 | |
| Reverse recovery time@ $I_F=0.5A, I_R=1.0A, I_{RR}=0.25A$ | t_{rr} | - | - | 50 | ns |

THERMAL RESISTANCES

| Symbol | Parameter | Min. | Typ. | Max. | Unit |
|---------------|--|------|------|------|------|
| $R_{th(j-c)}$ | Thermal resistance from junction to case | - | 2 | - | °C/W |

MARKING



| | |
|-----|----------------------------------|
| EUR | EPI Ultrafast Recovery Rectifier |
| 15 | $I_{F(AV)}=15A$ |
| 06 | $V_{RRM}:600V$ |
| E | Package:TO-263 |

xH1: Month, 1/2/3~9/A/B/C

3x1:

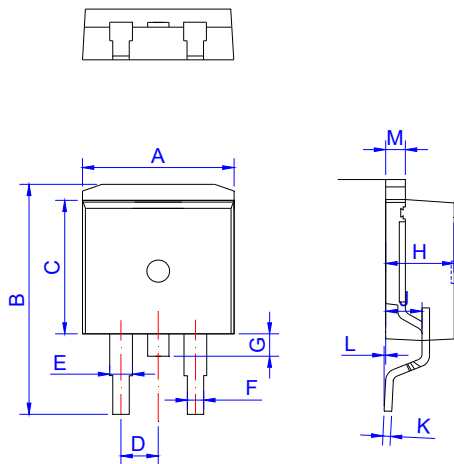
| | | | | | | |
|------|------|------|------|------|------|------|
| 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
| H | I | J | K | L | M | N |
| 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | ... |
| O | P | Q | R | S | T | ... |

3Hx: Batch number

ORDERING INFORMATION

| | | | | | | | |
|----------------------------|------------------|-----------|-----------|-----------------|----------------|----------------|------------------------------|
| J | E | U | R | 15 | 06 | E | -R |
| JieJie Microelectronics | EPI Ultrafast | Ultrafast | Rectifier | $I_{F(AV)}=15A$ | $V_{RRM}:600V$ | Package:TO-263 | Null:Tube R:Tape and reel |

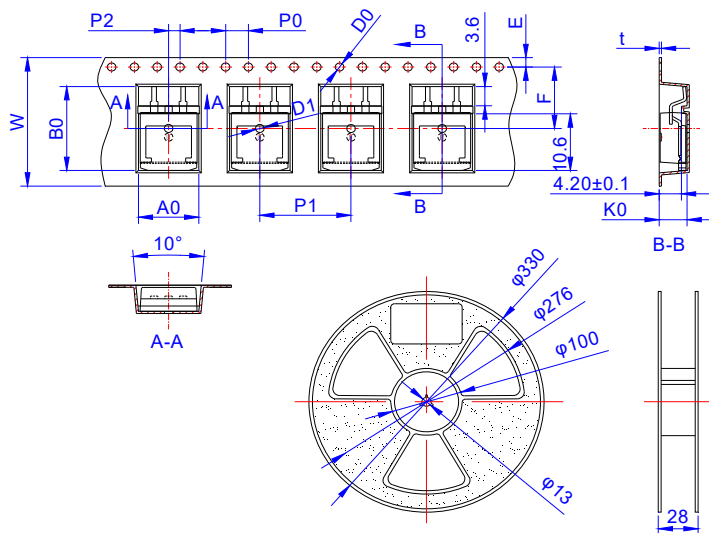
PACKAGE MECHANICAL DATA



TO-263

| Ref. | Dimensions | | | | | |
|------|-------------|------|-------|--------|-------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 9.90 | | 10.20 | 0.390 | | 0.402 |
| B | 14.70 | | 15.80 | 0.579 | | 0.622 |
| C | 8.80 | | 9.60 | 0.346 | | 0.378 |
| D | | 2.54 | | | 0.100 | |
| E | 1.20 | | 1.40 | 0.047 | | 0.055 |
| F | 0.75 | | 0.85 | 0.030 | | 0.033 |
| G | | | 1.75 | | | 0.069 |
| H | 4.40 | | 4.70 | 0.173 | | 0.185 |
| J | 2.30 | | 2.70 | 0.091 | | 0.106 |
| K | 0.38 | | 0.55 | 0.015 | | 0.022 |
| L | 0 | 0.10 | 0.25 | 0 | 0.004 | 0.010 |
| M | 1.17 | | 1.37 | 0.046 | | 0.054 |

TAPE AND REEL SPECIFICATION-TO-263



| Ref. | Dimensions | | | | | |
|------|-------------|-------|-------|--------|-------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| W | 23.70 | 24.00 | 24.30 | 0.933 | 0.945 | 0.957 |
| E | 1.65 | 1.75 | 1.85 | 0.065 | 0.069 | 0.073 |
| F | 11.40 | 11.50 | 11.60 | 0.449 | 0.453 | 0.457 |
| D0 | - | 1.50 | 1.60 | - | 0.059 | 0.063 |
| D1 | - | 1.50 | 1.60 | - | 0.059 | 0.063 |
| P0 | 3.90 | 4.00 | 4.10 | 0.154 | 0.157 | 0.161 |
| P1 | 15.90 | 16.00 | 16.10 | 0.626 | 0.630 | 0.634 |
| P2 | 1.90 | 2.00 | 2.10 | 0.075 | 0.079 | 0.083 |
| A0 | 10.80 | 10.90 | 11.00 | 0.425 | 0.429 | 0.433 |
| B0 | 16.20 | 16.30 | 16.40 | 0.638 | 0.642 | 0.646 |
| K0 | 4.80 | 4.90 | 5.00 | 0.189 | 0.193 | 0.197 |
| t | 0.35 | 0.40 | 0.45 | 0.014 | 0.016 | 0.018 |

PACKAGE INFORMATION- TO-263

| PART No. | UNIT WEIGHT (g/PCS) TYP | TUBE (PCS) | PER CARTON (PCS) |
|-------------|-------------------------|------------|------------------|
| JEUR1506E | 1.55 | 50 | 5,000 |
| PART No. | UNIT WEIGHT (g/PCS) TYP | REEL (PCS) | PER CARTON (PCS) |
| JEUR1506E-R | 1.55 | 800 | 4,000 |

CHARACTERISTICS CURVE

FIG.1 Typical forward characteristics

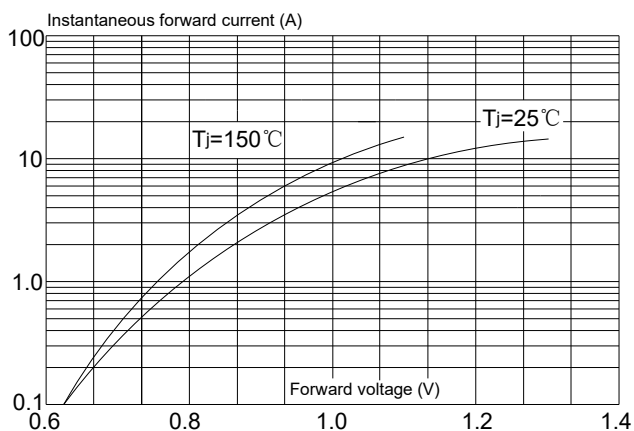


FIG.2 Typical reverse characteristics

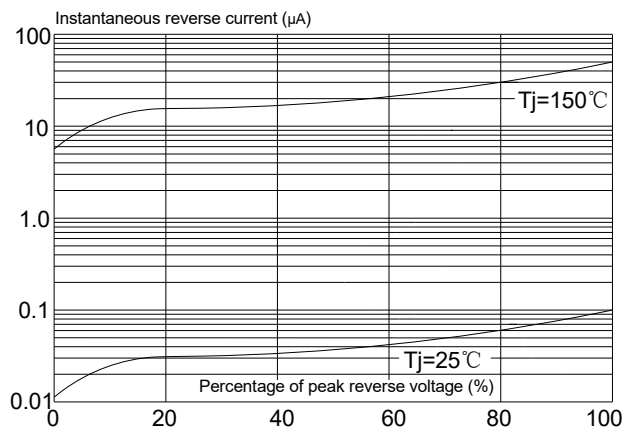


FIG.3 Maximum non-repetitive peak forward surge current(10ms single half sine-wave)

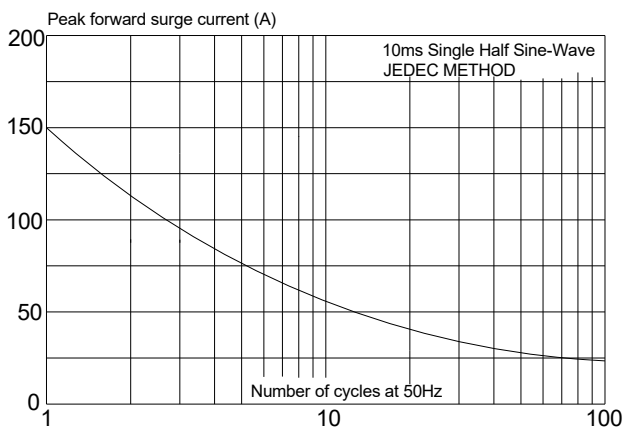


FIG.4 Maximum non-repetitive peak forward surge current(8.3ms single half sine-wave)

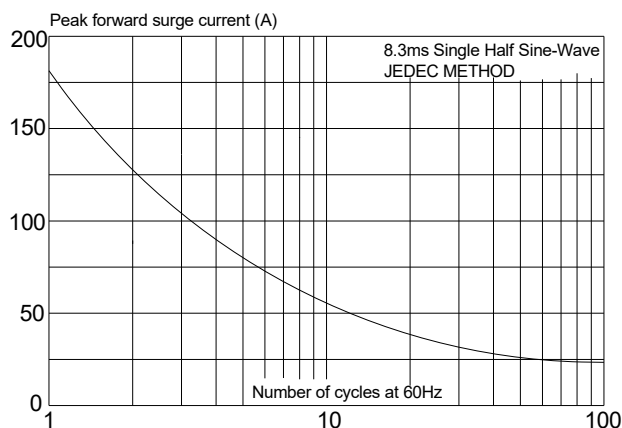


FIG.5: Forward current derating curve

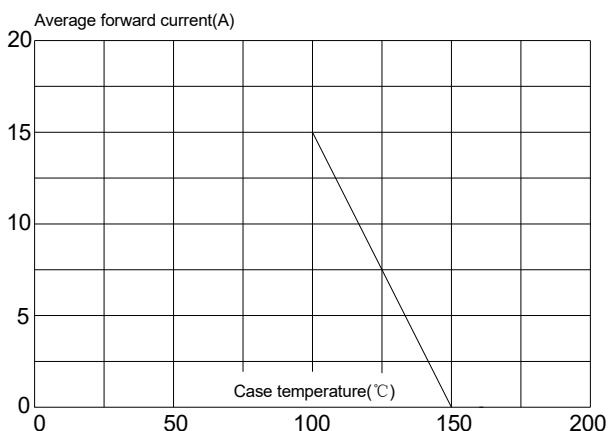
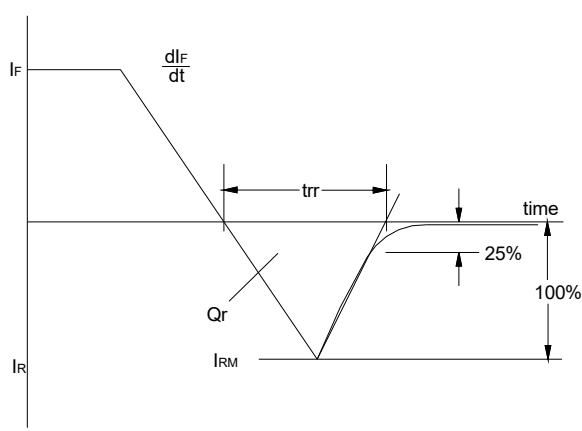


FIG.6: Reverse recovery definitions




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