



JEUR6004SW

EPI ULTRAFAST RECOVERY RECTIFIER

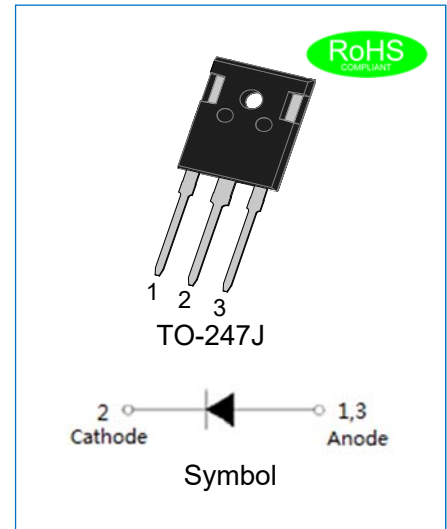
Rev.1.4

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-247J molded plastic over passivated junction
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 6 gram



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

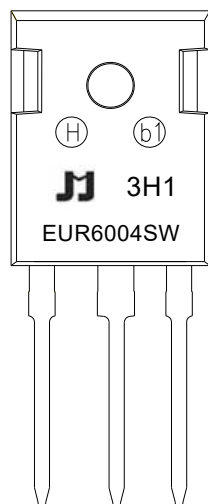
| Parameter | Symbol | JEUR6004SW | Unit |
|--|----------------|-------------|--------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 400 | V |
| Maximum DC blocking voltage | V_{DC} | 400 | V |
| Average forward current at $T_{mb}=125^{\circ}\text{C}$ | $I_{F(AV)}$ | 60 | A |
| Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 600 | A |
| Junction temperature and storage temperature range | T_j, T_{stg} | -55 to +150 | $^{\circ}\text{C}$ |

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

| Parameter | | Symbol | Min. | Typ. | Max. | Unit |
|-----------------------|--|----------|------|------|------|---------|
| Forward voltage | $I_F=60A, T_J=25^{\circ}C$ | V_F | - | 1.15 | 1.45 | V |
| | $I_F=60A, T_J=150^{\circ}C$ | | - | 0.95 | 1.35 | |
| Reverse current | $V_R=400V, T_J=25^{\circ}C$ | I_R | - | - | 5 | μA |
| | $V_R=400V, T_J=150^{\circ}C$ | | - | - | 500 | |
| Reverse recovery time | $I_F=0.5A, I_R=1A, I_{rr}=0.25A$ | t_{rr} | - | - | 75 | ns |
| | $I_F=1A, V_R=30V, di/dt=200A/\mu s, T_J=25^{\circ}C$ | | - | 29 | - | |

THERMAL RESISTANCES

| Symbol | Parameter | Min. | Typ. | Max. | Unit |
|----------------|---|------|------|------|---------------|
| $R_{th(j-mb)}$ | Thermal resistance from junction to mounting base | - | - | 1 | $^{\circ}C/W$ |
| $R_{th(j-a)}$ | Thermal resistance from junction to ambient | - | 45 | - | $^{\circ}C/W$ |

MARKING

| | |
|-----|----------------------------------|
| EUR | EPI Ultrafast Recovery Rectifier |
| 60 | $I_{F(AV)}=60A$ |
| 04 | $V_{RRM}:400V$ |
| SW | Package:TO-247J |

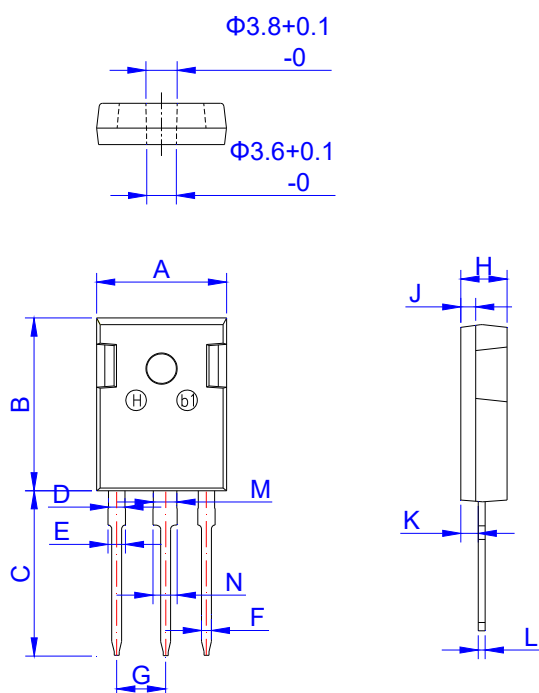
xH1: Month, 1/2/3~9/A/B/C3x1:

| | | | | | | |
|------|------|------|------|------|------|------|
| 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 | 60 | 04 | SW |
| JieJie Microelectronics | EPI Ultrafast | Rectifier | | $I_{F(AV)}=60A$ | $V_{RRM}:400V$ | Package:TO-247J |

PACKAGE MECHANICAL DATA



TO-247J

| Ref. | Dimensions | | | | | |
|------|-------------|-------|-------|--------|-------|-------|
| | Millimeters | | | Inches | | |
| | Min. | Typ. | Max. | Min. | Typ. | Max. |
| A | 15.50 | 15.80 | 16.10 | 0.610 | 0.622 | 0.634 |
| B | 20.80 | 21.00 | 21.20 | 0.819 | 0.827 | 0.835 |
| C | 19.70 | 20.00 | 20.30 | 0.776 | 0.787 | 0.799 |
| D | 1.80 | 2.00 | 2.20 | 0.071 | 0.079 | 0.087 |
| E | 1.90 | 2.10 | 2.30 | 0.075 | 0.083 | 0.091 |
| F | 1.00 | 1.20 | 1.40 | 0.039 | 0.047 | 0.055 |
| G | 5.25 | | 5.65 | 0.207 | | 0.222 |
| H | 4.80 | 5.00 | 5.20 | 0.189 | 0.197 | 0.205 |
| J | 1.90 | 2.00 | 2.10 | 0.075 | 0.079 | 0.083 |
| K | 2.20 | 2.35 | 2.50 | 0.087 | 0.093 | 0.098 |
| L | 0.41 | 0.60 | 0.79 | 0.016 | 0.024 | 0.031 |
| M | 2.80 | 3.00 | 3.20 | 0.110 | 0.118 | 0.126 |
| N | 2.90 | 3.10 | 3.30 | 0.114 | 0.122 | 0.130 |

PACKAGE INFORMATION-TO-247J

| OUTLINE | UNIT WEIGHT (g/PCS) TYP | TUBE (PCS) | PER CARTON (PCS) |
|---------|----------------------------|---------------|---------------------|
| TUBE | 6 | 30 | 2,250 |

CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics

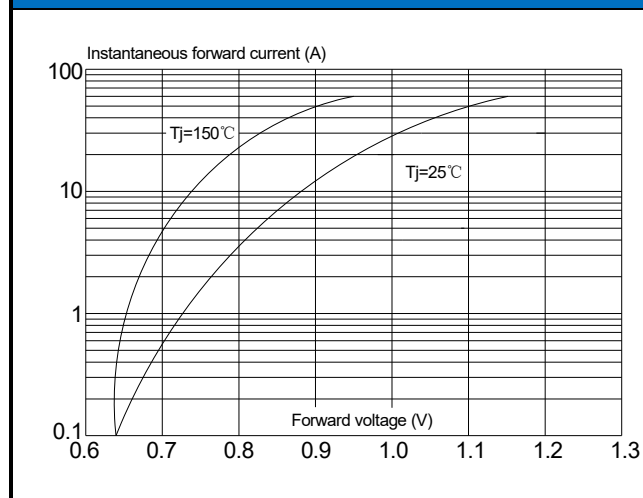


FIG.2: Typical reverse characteristics

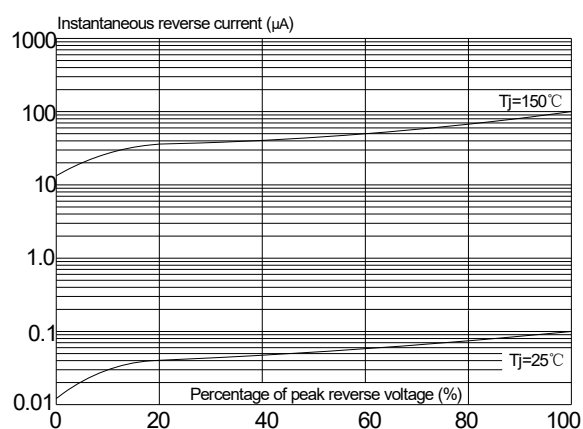


FIG.3: Maximum non-repetitive peak forward surge current(8.3ms single half sine-wave)

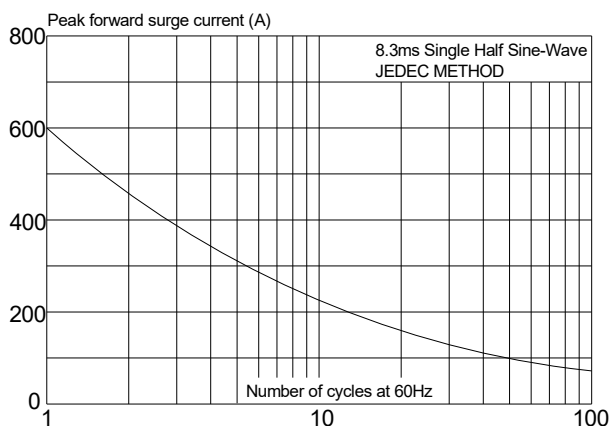
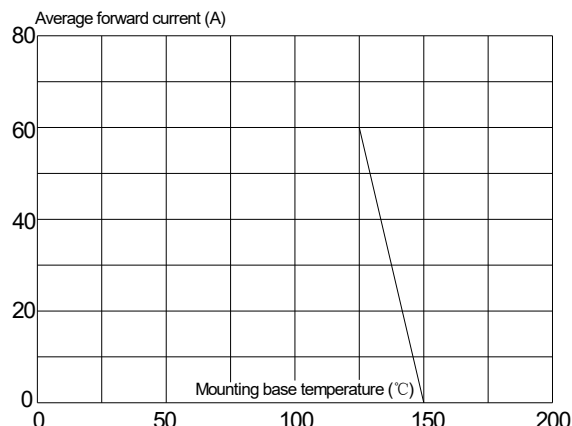


FIG.4: Forward current derating curve



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