

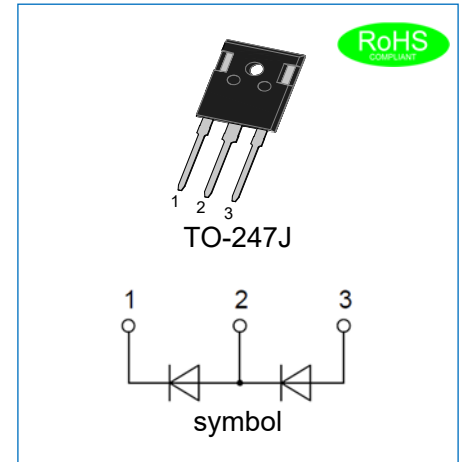


GP3016SRT GENERAL PURPOSE RECTIFIER

Rev.1.4

DESCRIPTION

- ◇ Plastic package has underwriters laboratories flammability classification 94V-0
- ◇ Glass passivated chip junction
- ◇ Lead free in compliance with EU RoHS 2011/65/EU directive



MECHANICAL DATA

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

ABSOLUTE MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS(Per diode)

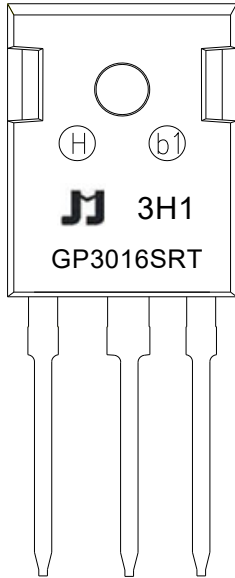
(Rating at 25°C ambient temperature unless otherwise specified.)

| Parameter | Symbol | GP3016SRT | Unit |
|--|----------------|--------------------|-------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 1600 | V |
| Maximum RMS voltage | V_{RMS} | 1120 | V |
| Maximum DC blocking voltage | V_{DC} | 1600 | V |
| Average forward current at $T_L=100^{\circ}C$ | $I_{F(AV)}$ | 30 | A |
| Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 320 | A |
| Maximum forward voltage @ $I_F=30A$ | V_F | 1.2 | V |
| Maximum DC reverse current at rated DC blocking voltage | I_R | $T_J=25^{\circ}C$ | 5 μA |
| | | $T_J=150^{\circ}C$ | 1 mA |
| Typical junction capacitance $V_R=4.0V$, $f=1MHz$ | C_J | 180 | pF |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 to +150 | $^{\circ}C$ |
| Virtual junction temperature | T_{VJ} | -55 to +175 | $^{\circ}C$ |

THERMAL RESISTANCES

| Symbol | Parameter | GP3016SRT | Unit |
|---------------|------------------|-----------|------|
| $R_{th(j-c)}$ | Junction to case | 0.4 | °C/W |

MARKING



| | |
|----|---------------------------|
| G | General Purpose Rectifier |
| P | Pin |
| 30 | $I_{F(AV)}=30A$ |
| 16 | $V_{RRM}:1600V$ |
| S | TO-247J |
| RT | Reverse tandem |

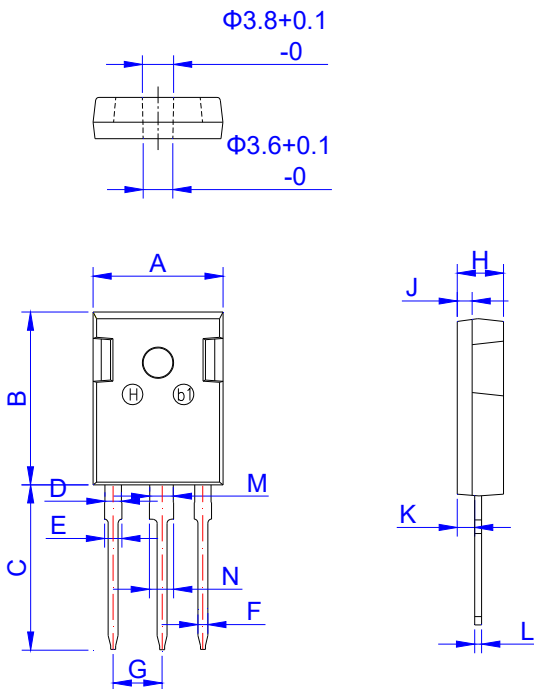
$\underline{x}H1$: Month, 1/2/3~9/A/B/C

$3\underline{x}1$:

| | | | | | | |
|------|------|------|------|------|------|------|
| 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

PACKAGE MECHANICAL DATA



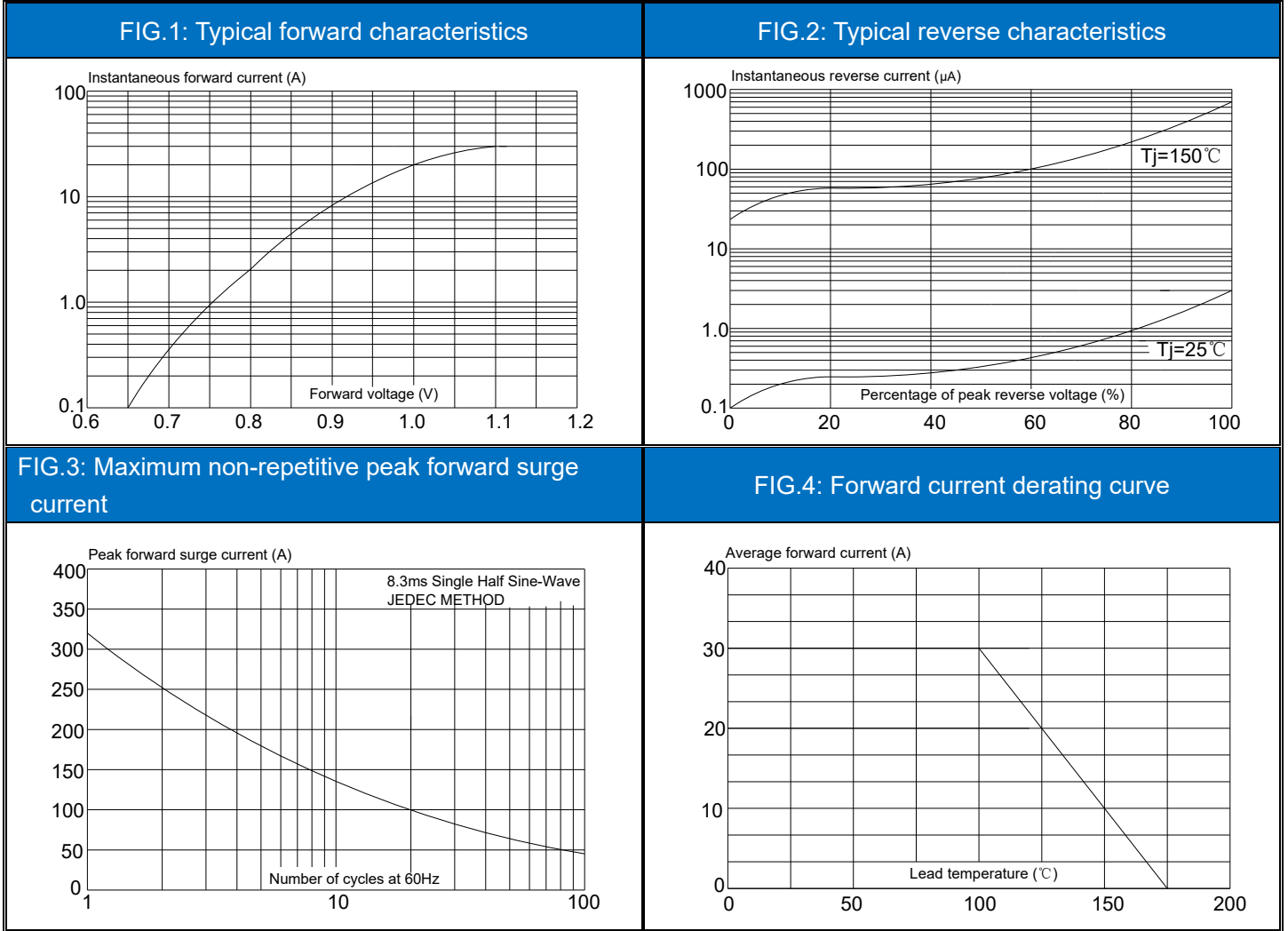
TO-247J

| 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



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