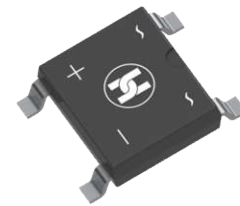
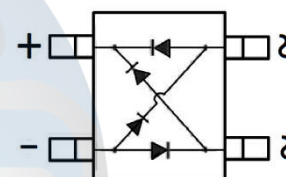


BRIDGE RECTIFIER
FEATURES

- Low reverse voltage leakage current
- Glass passivated die construction
- Low forward voltage drop
- High forward surge current capability
- Small surface mount device


ABS

MECHANICAL DATA

- Case: ABS
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.10 grams (approximate)
- Marking: ABS205-ABS210

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | ABS | ABS | ABS | ABS | ABS | ABS | ABS | Unit |
|---|-----------------|------------|-----|-----|-----|-----|-----|------|---------------------------|
| | | 205 | 21 | 22 | 24 | 26 | 28 | 210 | |
| Repetitive peak reverse voltage | V_{RRM} | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| DC Reverse Voltage | V_R | 50 | 100 | 200 | 400 | 600 | 800 | 1000 | V |
| RMS Reverse Voltage | V_{RMS} | 35 | 70 | 140 | 280 | 420 | 560 | 700 | V |
| Average forward rectified output current at $T_A=40^\circ\text{C}$ | $I_{F(AV)}$ | 2.0 | | | | | | | A |
| Peak forward surge current single sine-wave superimposed on rated load (JEDEC method) | I_{FSM} | 50 | | | | | | | A |
| Rating for fusing ($t < 8.3\text{ms}$) | I^2t | 10 | | | | | | | A^2s |
| Typical thermal resistance per element (note 1) | $R_{\theta JA}$ | 110 | | | | | | | $^\circ\text{C}/\text{W}$ |
| Typical junction capacitance per element (note 2) | C_j | 25 | | | | | | | pF |
| Operating junction and storage temperature range | T_J, T_{STG} | -55 ~ +150 | | | | | | | $^\circ\text{C}$ |

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

| Parameter | Symbol | ABS | ABS | ABS | ABS | ABS | ABS | ABS | Unit | Conditions |
|--|--------|-----|-----|-----|-----|-----|-----|-----|---------------|-------------------------|
| | | 205 | 21 | 22 | 24 | 26 | 28 | 210 | | |
| Maximum instantaneous forward voltage drop per leg | V_F | 1.1 | | | | | | | V | $I_F=2\text{A}$ |
| Maximum DC reverse current at rated | I_R | 10 | | | | | | | μA | $T_A=25^\circ\text{C}$ |
| DC blocking voltage per element | | 500 | | | | | | | | $T_A=125^\circ\text{C}$ |

Notes:

1. Thermal resistance from Junction to ambient on P.C.board mounting;
2. Measured at 2.0MHz and applied reverse voltage of 4.0 volts;
3. Resistive or Inductive load, 60Hz;
4. For capacitive load derate by 20 %.

BRIDGE RECTIFIER

Typical Characteristics

Fig. 1 Derating Curve for Output Rectified Current

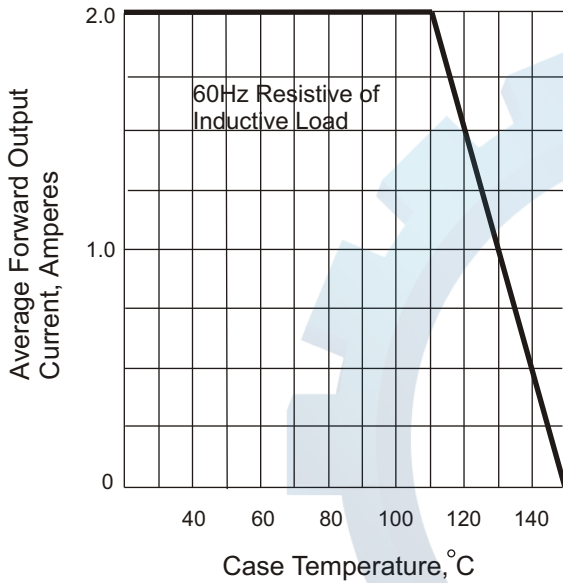


Fig. 2 Maximum Non-repetitive Peak Forward Surge Current

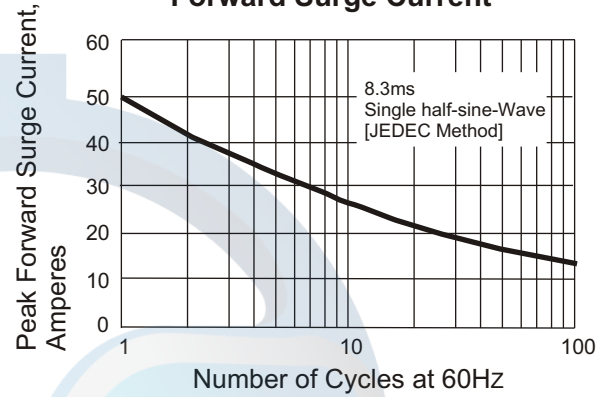


Fig. 4 Typical Revers Characteristics

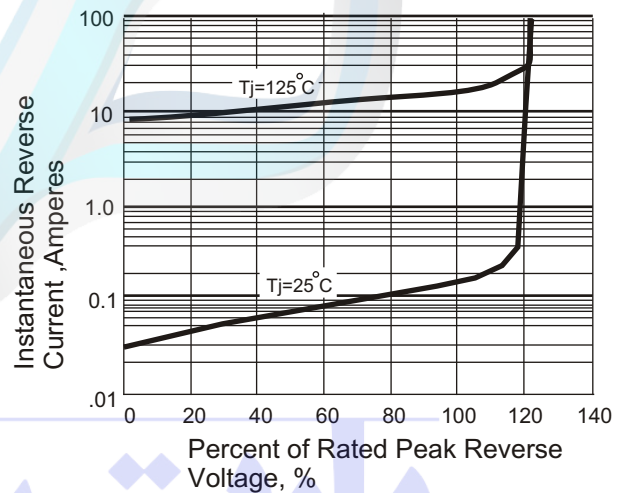


Fig. 3 Typical Instantaneous Forward Characteristics

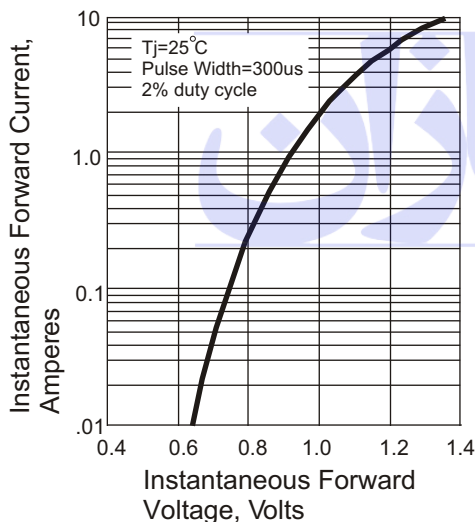
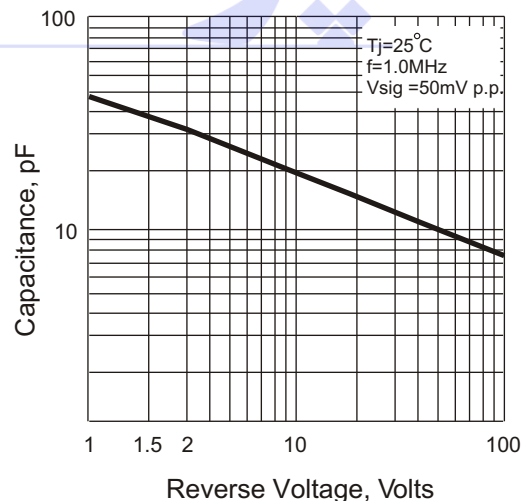
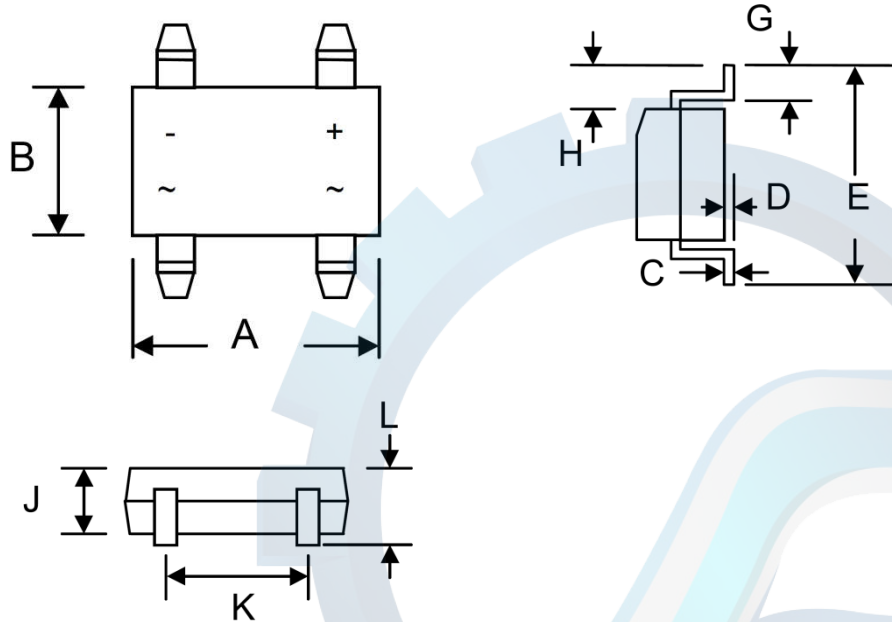


Fig. 5 Typical Junction Capacitance



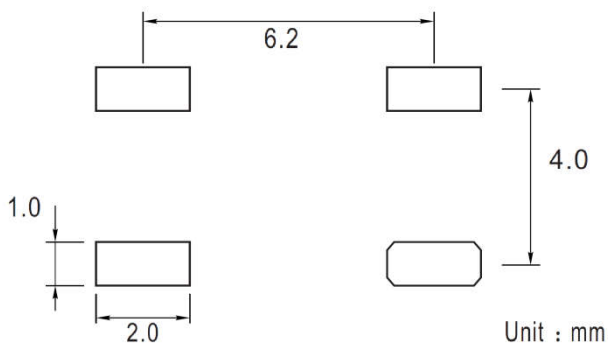
BRIDGE RECTIFIER

ABS Package Outline Dimensions



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|--------|---------------------------|------|----------------------|-------|
| | Min. | Max. | Min. | Max. |
| A | 4.80 | 5.30 | 0.189 | 0.209 |
| B | 4.20 | 4.60 | 0.165 | 0.181 |
| C | 0.15 | 0.25 | 0.006 | 0.010 |
| D | ----- | 0.20 | — | 0.008 |
| E | 6.00 | 6.80 | 0.236 | 0.268 |
| G | 0.30 | 0.70 | 0.012 | 0.028 |
| H | 0.90 | 1.10 | 0.035 | 0.043 |
| J | — | 1.50 | — | 0.059 |
| K | 3.80 | 4.20 | 0.150 | 0.165 |
| L | 1.22 | 1.72 | 0.048 | 0.068 |

ABS Suggested Pad Layout



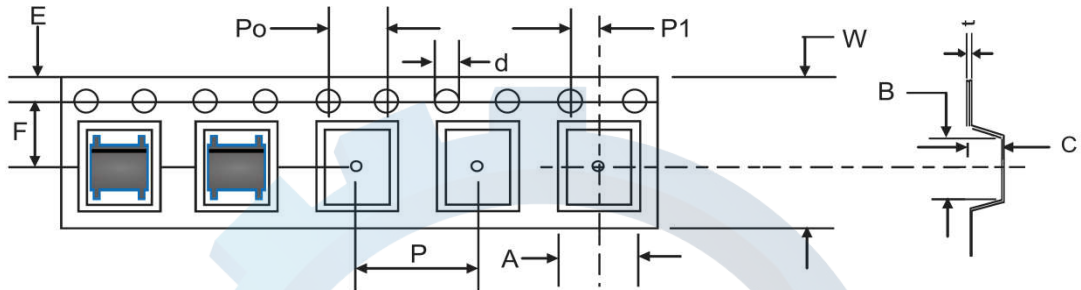
Note:

1. Controlling dimension: in millimeters
2. General tolerance: $\pm 0.05\text{mm}$
3. The pad layout is for reference purposes only

BRIDGE RECTIFIER

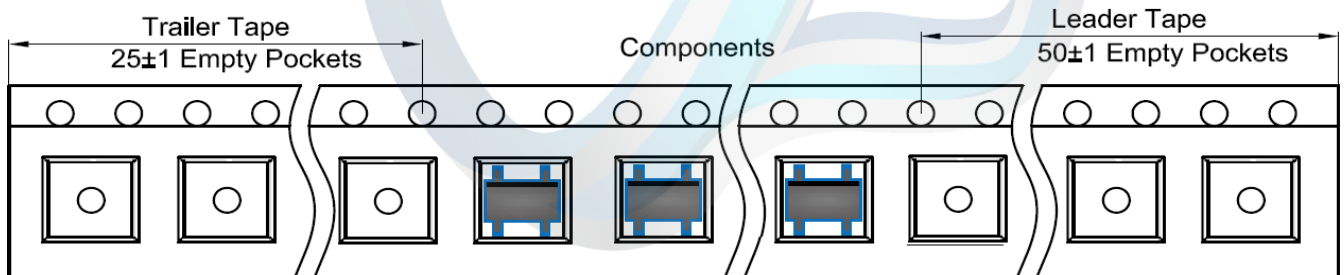
ABS Tape and Reel

ABS Embossed Carrier Tape

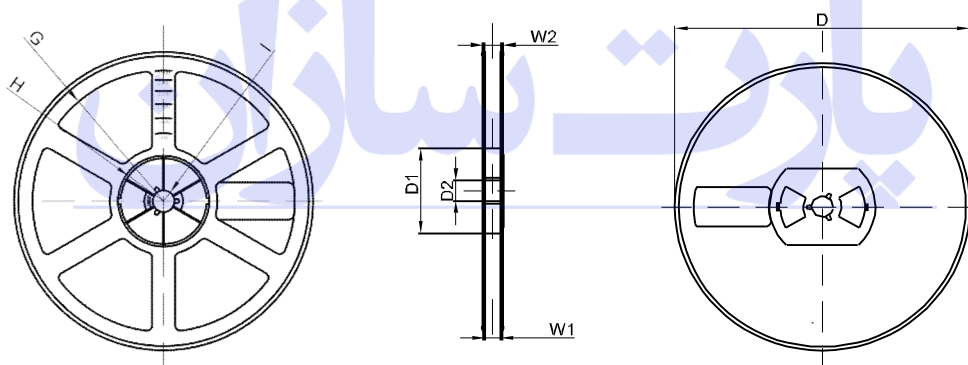


| DIMENSIONS ARE IN MILLIMETER | | | | | | | | | | |
|------------------------------|------|------|------|-------|------|------|------|------|------|-------|
| TYPE | A | B | C | d | E | F | P0 | P | P1 | W |
| ABS | 5.31 | 6.68 | 1.85 | Ø1.50 | 1.75 | 5.50 | 4.00 | 8.00 | 2.00 | 12.00 |
| TOLERANCE | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 | ±0.1 |

ABS Tape Leader and Trailer



ABS Reel



| DIMENSIONS ARE IN MILLIMETER | | | | | | | | |
|------------------------------|------|------|-------|------|--------|-------|-------|-------|
| REEL OPTION | D | D1 | D2 | G | H | I | W1 | W2 |
| 13" DIA | Ø330 | 75.0 | 13.00 | R165 | R37.50 | R6.50 | 12.40 | 17.60 |
| TOLERANCE | ±2 | ±1 | ±1 | ±1 | ±1 | ±1 | ±1 | ±1 |