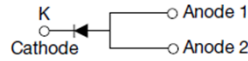
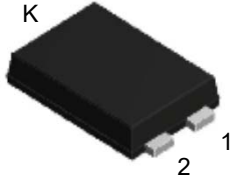




## Excellent Schottky Barrier Rectifiers



**TO-277**

### Primary Characteristics

|                   |  |            |
|-------------------|--|------------|
| $I_F$             | 20   | A          |
| $V_{RRM}$         | 60   | V          |
| $I_{FSM}$         | 200  | A          |
| $V_F$             | $I_F=3A @ 125^\circ C (0.22 \text{ Typ.})$ | V          |
| $T_J \text{ max}$ | 150  | $^\circ C$ |

### Features

- Schottky barrier diodes
- Low forward voltage drop
- Low leakage current
- Moisture sensitivity: level 1, per J-STD-020
- Solder dip 260  $^\circ C$ , 10 s
- Low profile
- Heatsink design

### Mechanical Data

- Case : TO-277
- Case Material : Molded Plastic. UL Flammability Classification Rating 94V-0
- Terminals : Lead Free Plating (Tin Finish). Solderable per MIL-STD-202, Method 208
- Weight : 0.096 grams (approximate)

### Ordering Information

| Part No.     | Remark         | Package | Packing     |
|--------------|----------------|---------|-------------|
| EBRT20M60T   | RoHS Compliant | TO-277  | 5000 / Reel |
| EBRT20M60T-H | Halogen Free   |         |             |

### Maximum Ratings (TA=25 $^\circ C$ unless otherwise noted)

| Parameter   | Symbol          | EBRT20M60T                                       | Unit         |
|---|-----------------|--|--------------|
| Maximum repetitive peak reverse voltage   | $V_{RRM}$       | 60   | V            |
| Maximum RMS voltage   | $V_{RMS}$       | 42   | V            |
| Maximum DC blocking voltage   | $V_{DC}$        | 60   | V            |
| Maximum average forward rectified current   | $I_F$           | 20   | A            |
| Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load  | $I_{FSM}$       | 200  | A            |
| Maximum Instantaneous Forward Voltage<br>$I_F=3A @ 25^\circ C$<br>$I_F=3A @ 125^\circ C$<br>$I_F=20A @ 25^\circ C$<br>$I_F=20A @ 125^\circ C$ | $V_F$           | 0.34 Typ.<br>0.22 Typ.<br>0.56 Max.<br>0.44 Typ. | V            |
| Maximum DC Reverse Current @ TA=25 $^\circ C$<br>at Rated DC Blocking Voltage @ TA=100 $^\circ C$   | $I_R$           | 0.5<br>100                                       | mA           |
| Typical Junction Capacitance (NOTE1)  | $C_J$           | 1520   | pF           |
| Typical Thermal Resistance  | $R_{\theta JC}$ | 10   | $^\circ C/W$ |
| Operating Temperature Range   | $T_J$           | -55 to +150                                      | $^\circ C$   |
| Storage Temperature Range   | $T_{STG}$       | -55 to +150                                      | $^\circ C$   |
| Marking Code  |                 | T20M60T、20M60T                                   |              |

### NOTES :

1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.



## Excellent Schottky Barrier Rectifiers

### Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

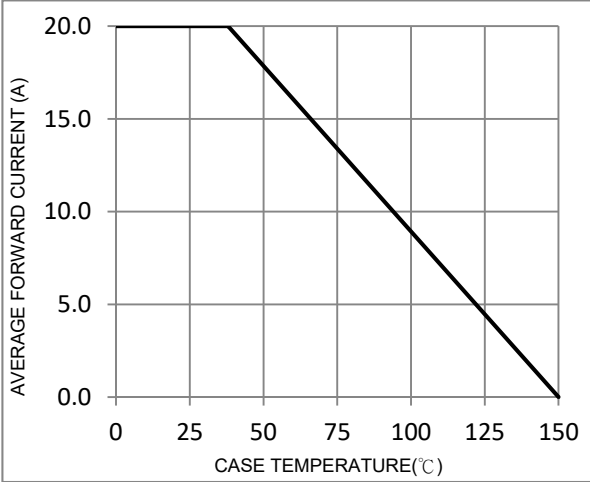


FIG. 2-Typical Forward Characteristics

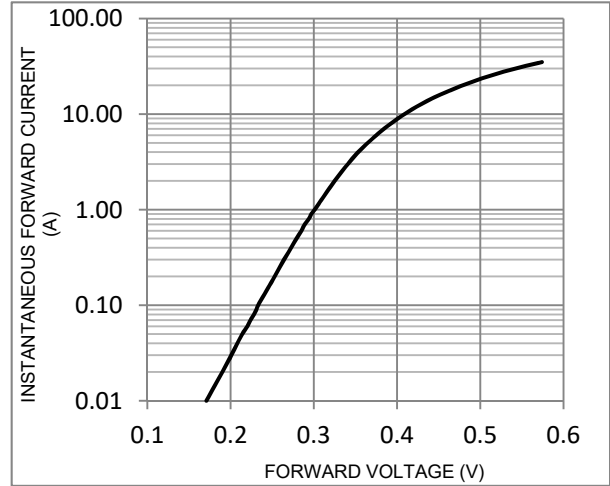


FIG. 3-Maximum Non-Repetitive Forward Surge Current

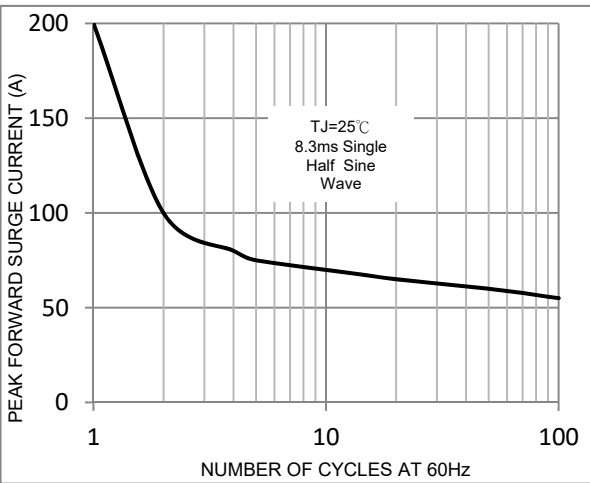


FIG. 4-Typical Reverse Characteristics

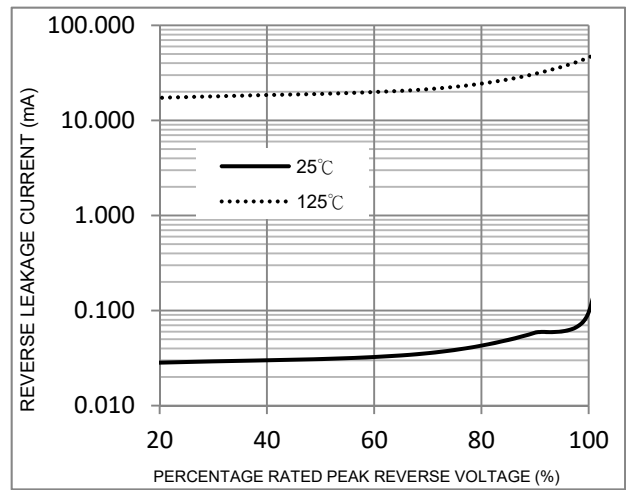
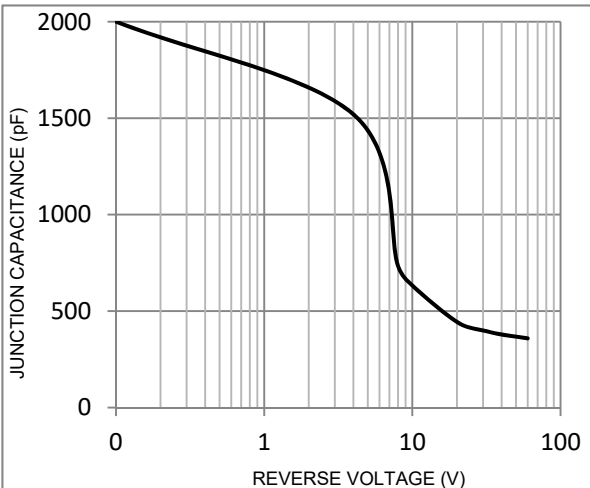
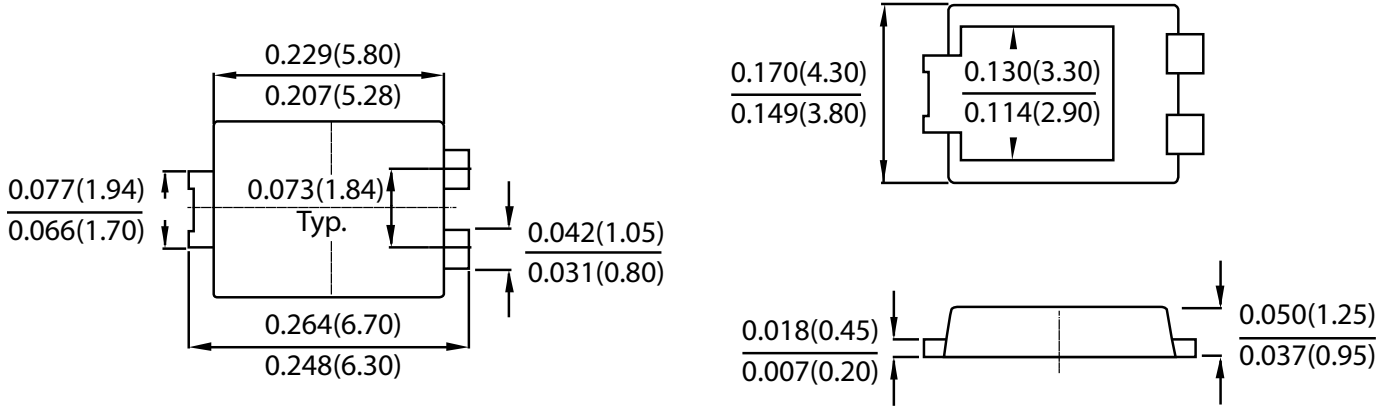


FIG. 5-Typical Junction Capacitance





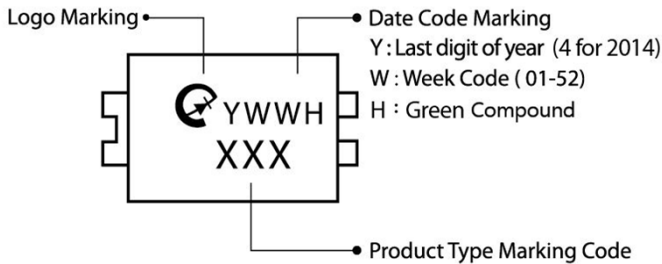
### Package Outline Dimensions



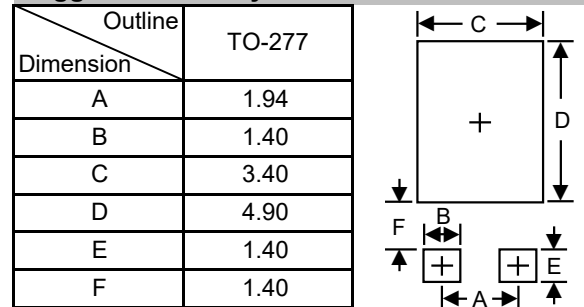
### TO-277

Dimensions in inches and (millimeters)

### Marking Information

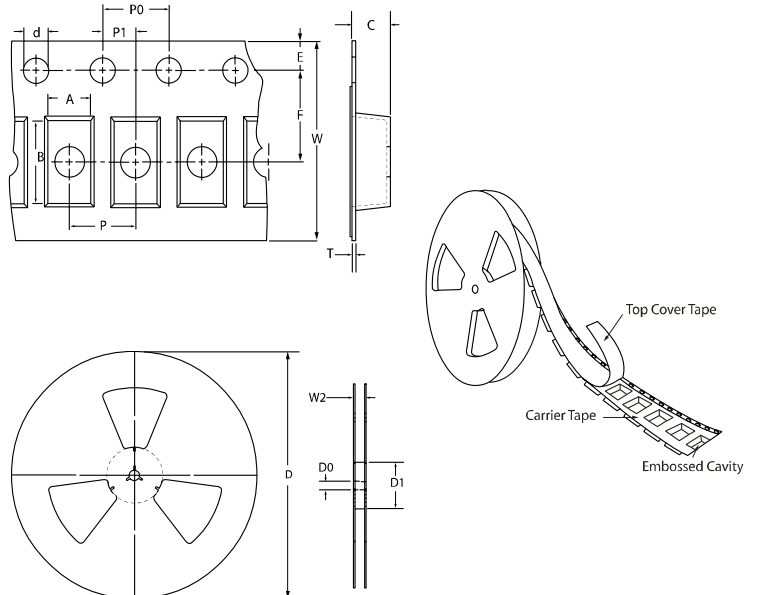


### Suggested Pad Layout



### Tape & Reel Specification

| Item                   | Symbol | TO-277 (mm) |
|------------------------|--------|-------------|
| Carrier width          | A      | 4.5 (max)   |
| Carrier length         | B      | 7.1 (max)   |
| Carrier depth          | C      | 1.4 ± 0.1   |
| Sprocket hole          | d      | 1.50 ± 0.1  |
| Reel outside diameter  | D      | 330 ± 2.0   |
| Feed hole diameter     | D0     | 13.5 ± 1.0  |
| Reel inner diameter    | D1     | 50 (min)    |
| Sprocket hole position | E      | 1.75 ± 0.1  |
| Punch hole position    | F      | 6.5 ± 1.1   |
| Sprocket hole pitch    | P      | 8.0 ± 0.1   |
| Sprocket hole pitch    | P0     | 4.0 ± 0.1   |
| Embossment center      | P1     | 2.0 ± 0.1   |
| Overall tape thickness | T      | 0.6 (max)   |
| Tape width             | W      | 14 ± 2.2    |
| Reel width             | W2     | 24.5 (max)  |





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