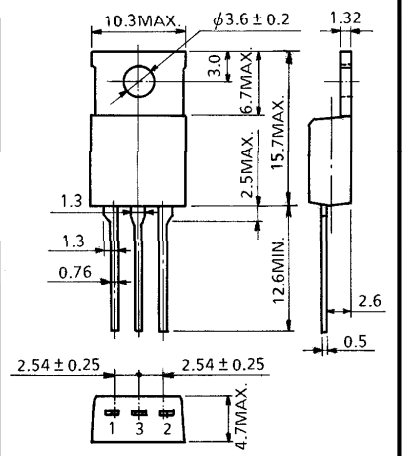
TOSHIBA SCHOTTKY BARRIER RECTIFIER STACK SCHOTTKY BARRIER TYPE

# 10FWJ2C42

HIGH SPEED RECTIFIER APPLICATIONS

- Average Output Rectified Current : $I_O$ = 10A
- Repetitive Peak Reverse Voltage : $V_{RRM}$ = 30V
- Low Forward Voltage : $V_{FM}$ = 0.55V

Unit in mm




1. ANODE
2. ANODE
3. CATHODE

| | |
|---|---|
| JEDEC | TO-220AB |
| EIAJ | — |
| TOSHIBA | 12-10E1A |

Weight : 2.0g

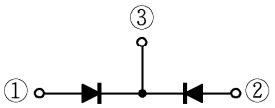
MAXIMUM RATINGS (Ta = 25°C)

| CHARACTERISTIC | SYMBOL | RATING | UNIT |
|---|---|---|---|
| Repetitive Peak Reverse Voltage | $V_{RRM}$ | 30 | V |
| Average Output Rectified Current (Tc = 107°C) | $I_O$ | 10 | A |
| Peak One Cycle Surge Forward Current | $I_{FSM}$ | 100 | A |
| Junction Temperature | $T_j$ | −40~125 | °C |
| Storage Temperature Range | $T_{stg}$ | −40~150 | °C |

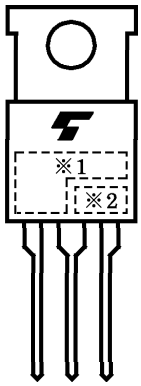
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

| CHARACTERISTIC | SYMBOL | TEST CONDITION | MIN. | TYP. | MAX. | UNIT |
|---|---|---|---|---|---|---|
| Peak Forward Voltage | $V_{FM}$ | $I_{FM}$ = 5.0A | — | — | 0.55 | V |
| Repetitive Peak Reverse Current | $I_{RRM}$ | $V_{RRM}$ = Ratings Voltage | — | — | 3.5 | mA |
| Reverse Recovery Time | $t_{rr}$ | $I_{FM}$ = 1.0A, di / dt = −50A / μs | — | — | 35 | ns |
| Junction Capacitance | $C_j$ | $V_R$ = 10V, f = 1.0MHz | 235 | — | — | pF |
| Thermal Resistance | $R_{th\ (j\text{-}c)}$ | DC Total, Junction to Case | — | — | 2.5 | °C / W |

POLARITY




MARKING

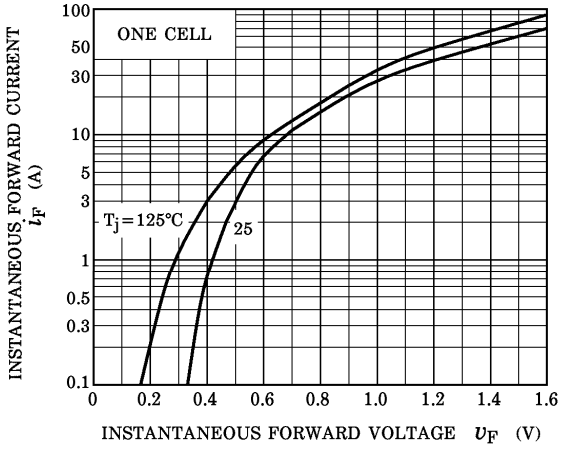



| ※1 | MARK | 10FWJ2C42 |
|---|---|---|
| ※2 | Lot Number<br>□□ — Month (Starting from Alphabet A)<br>└ — Year (Last Number of the Christian Era) | |

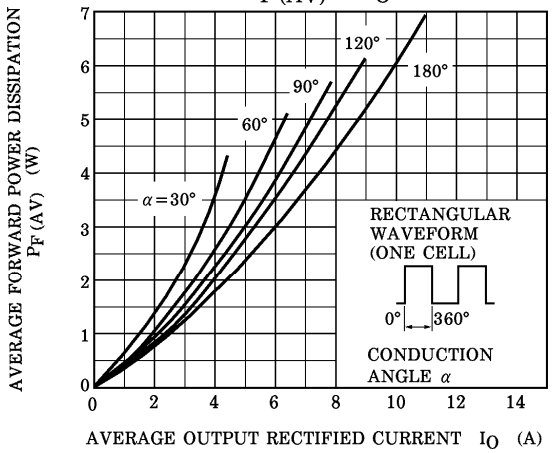
961001EAA2

● TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified operating ranges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.

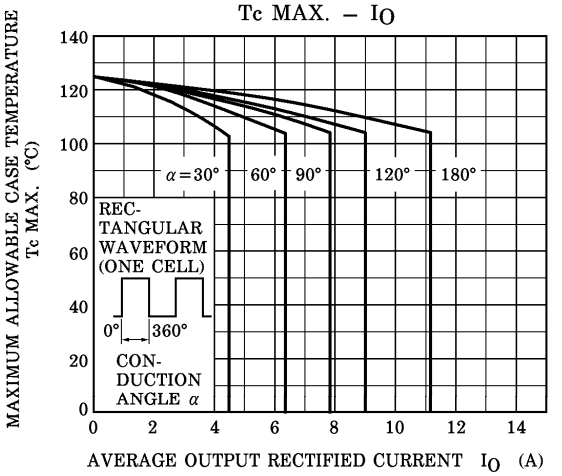
$i_F - v_F$



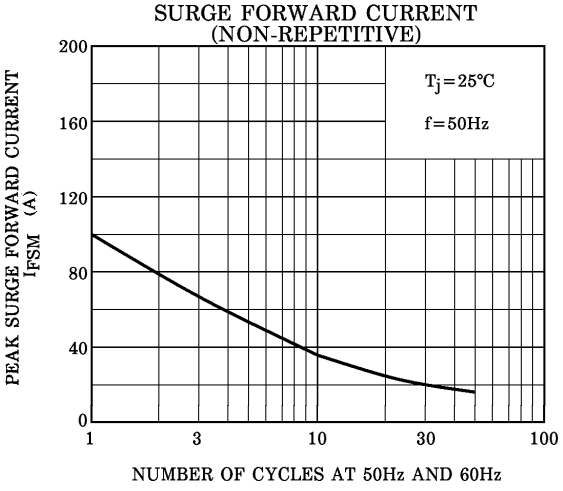

$P_{F(AV)} - I_O$



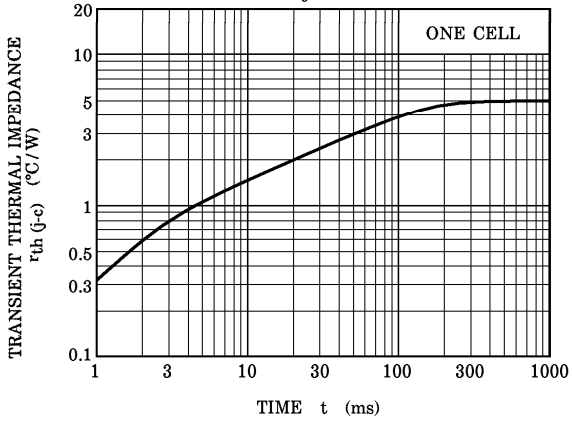

Tc MAX. – $I_O$



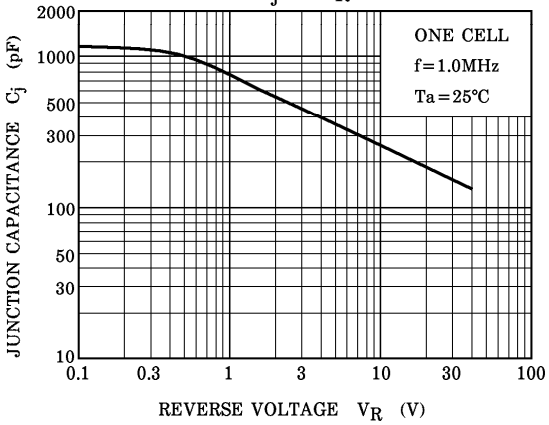

SURGE FORWARD CURRENT (NON-REPETITIVE)




$r_{th\,(j\text{-}c)} - t$




$C_j - V_R$ (TYPICAL)




961001EAA2'


- The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.
- The information contained herein is subject to change without notice.