

### ■ Features

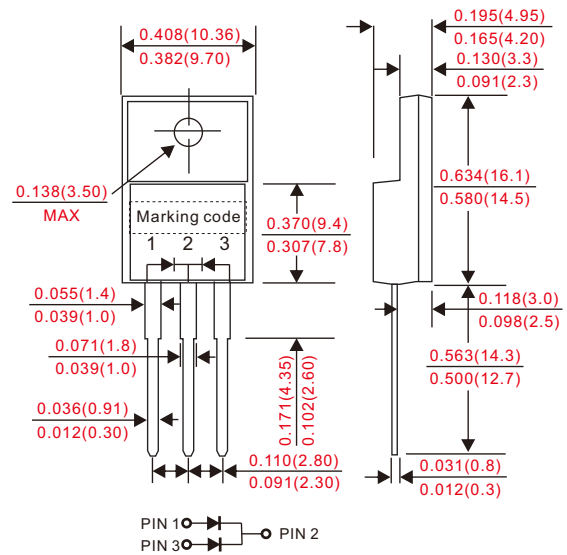
- Dual rectifier construction, positive centetap, offer 8.0A half wave and 16.0A full wave rectification.
- Low power loss, high efficiency.
- High surge current capability.
- Ultra fast recovery time for switching mode application.
- Low power loss.
- Glass passivated chip junctions.
- Suffix "G" indicates Halogen free parts, ex. UTF16005CTG.
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

### ■ Mechanical data

- Epoxy : UL94-V0 rated flame retardant.
- Case : JEDEC ITO-220AB molded plastic body.
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: As marked.
- Mounting Position : Any.
- Weight : Approximated 2.25 gram.

### ■ Outline

ITO-220AB



### ■ Maximum ratings and electrical characteristics

Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.  
For capacitive load, derate current by 20%.

| Parameter                  |              |                                                              | Conditions                                                           |                                                |                                                                          | Symbol                                                | MIN.                                         | TYP. | MAX. | UNIT |
|----------------------------|--------------|--------------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------|--------------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------|------|------|------|
| Forward rectified current  |              |                                                              |                                                                      |                                                |                                                                          | I <sub>O</sub>                                        |                                              |      | 16   | A    |
| Forward surge current      |              |                                                              | 8.3ms single half sine-wave superimposed on rate load (JEDEC method) |                                                |                                                                          | I <sub>FSM</sub>                                      |                                              |      | 150  | A    |
| Reverse current            |              |                                                              | V <sub>R</sub> = V <sub>RRM</sub> T <sub>A</sub> = 25°C              |                                                | I <sub>R</sub>                                                           |                                                       |                                              | 5.0  | uA   |      |
|                            |              |                                                              | V <sub>R</sub> = V <sub>RRM</sub> T <sub>A</sub> = 125°C             |                                                |                                                                          |                                                       |                                              | 100  |      |      |
| Diode junction capacitance |              |                                                              | f=1MHz and applied 4V DC reverse voltage                             |                                                |                                                                          | C <sub>J</sub>                                        |                                              | 170  |      | pF   |
| Storage temperature        |              |                                                              |                                                                      |                                                |                                                                          | T <sub>STG</sub>                                      | -55                                          |      | +150 | °C   |
|                            |              |                                                              |                                                                      |                                                |                                                                          |                                                       |                                              |      |      |      |
| Symbol                     | Marking code | Max. repetitive peak reverse voltage<br>V <sub>RRM</sub> (V) | Max. RMS voltage<br>V <sub>RMS</sub> (V)                             | Max. DC blocking voltage<br>V <sub>R</sub> (V) | Max. forward voltage<br>@8A, T <sub>A</sub> = 25°C<br>V <sub>F</sub> (V) | Max. reverse recovery time(1)<br>T <sub>rr</sub> (ns) | Operating temperature<br>T <sub>J</sub> (°C) |      |      |      |
| UTF16005CT                 | UTF16005CT   | 50                                                           | 35                                                                   | 50                                             | 1.0                                                                      | 50                                                    | -55 ~ +150                                   |      |      |      |
| UTF1601CT                  | UTF1601CT    | 100                                                          | 70                                                                   | 100                                            |                                                                          |                                                       |                                              |      |      |      |
| UTF1602CT                  | UTF1602CT    | 200                                                          | 140                                                                  | 200                                            |                                                                          |                                                       |                                              |      |      |      |
| UTF1604CT                  | UTF1604CT    | 400                                                          | 280                                                                  | 400                                            | 1.40                                                                     | 75                                                    |                                              |      |      |      |
| UTF1606CT                  | UTF1606CT    | 600                                                          | 420                                                                  | 600                                            | 1.70                                                                     |                                                       |                                              |      |      |      |
| UTF1608CT                  | UTF1608CT    | 800                                                          | 560                                                                  | 800                                            |                                                                          |                                                       |                                              |      |      |      |

Note : 1.  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$

### Rating and characteristic curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

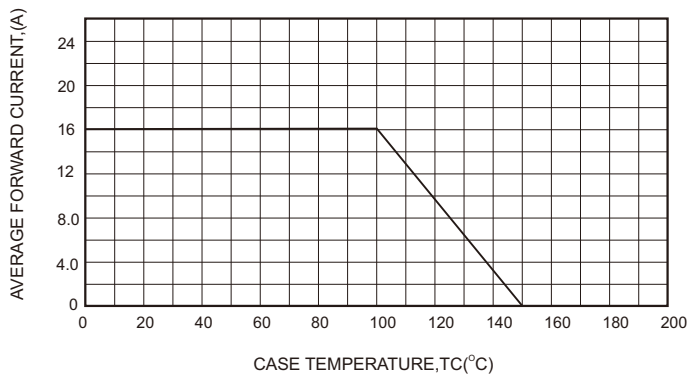


FIG.2-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

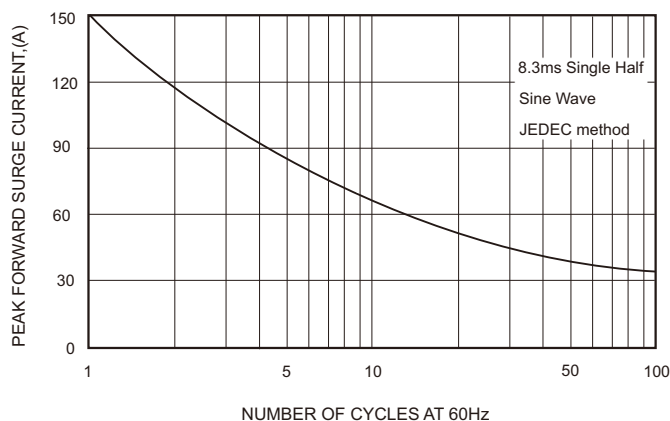


FIG.5- TEST CIRCUIT DIAGRAM AND REVERSE

#### RECOVERY TIME CHARACTERISTICS

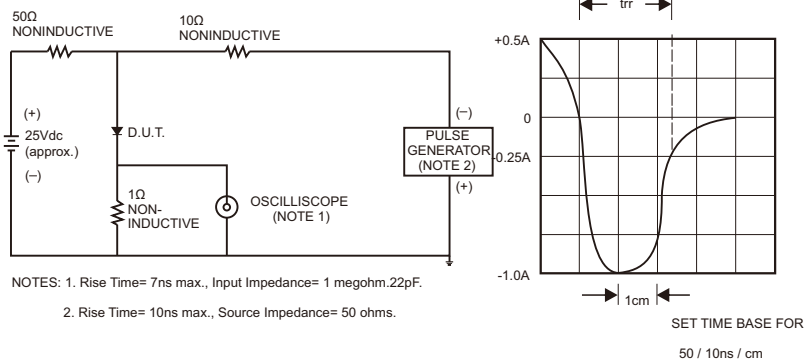


FIG.3-TYPICAL FORWARD CHARACTERISTICS

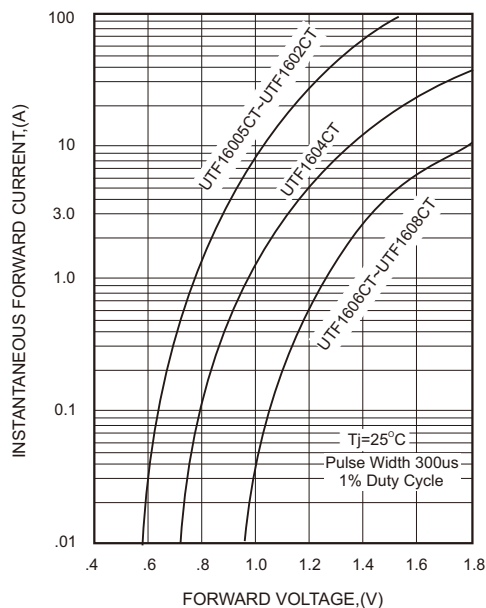
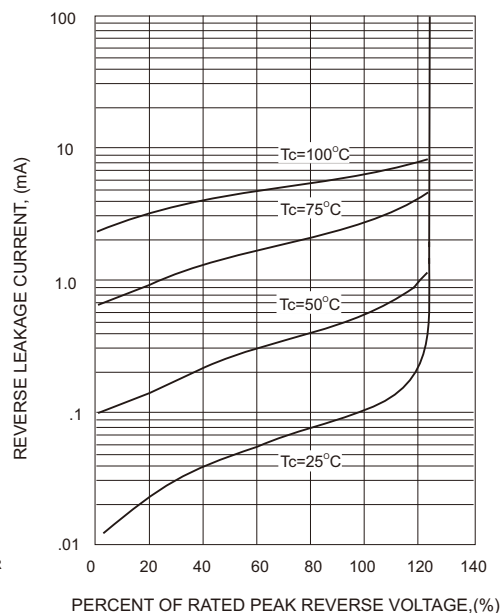


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



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