

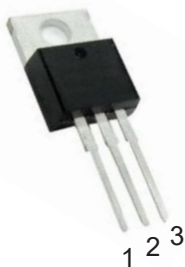
# MURE4020CT

# MURE4020CTF

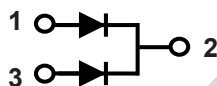
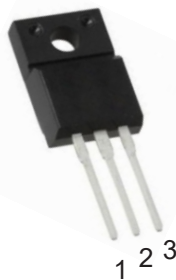
03-Jun-2021

## Epitaxial Superfast Recovery Rectifier

**TO-220AB**  
**MURE4020CT**



**TO-220F**  
**MURE4020CTF**



### Features

- Low forward voltage drop
- Low leakage current
- High current capability
- Super fast switching speed
- High forward surge capability
- High reliability

### Mechanical Data

- Epoxy: UL 94V-O rate flame retardant
- Lead: lead solderable per MIL-STD-202, method 208 guaranteed
- Mounting position: Any

| Parameter                                                                                               | Symbols         | MURE4020CT | MURE4020CTF | Units |
|---------------------------------------------------------------------------------------------------------|-----------------|------------|-------------|-------|
| Maximum Repetitive Peak Reverse Voltage                                                                 | VRRM            | 200        |             | V     |
| Maximum RMS voltage                                                                                     | VRMS            | 140        |             | V     |
| Maximum DC Blocking Voltage                                                                             | VDC             | 200        |             | V     |
| Maximum Average Forward Rectified Current                                                               | I(AV)           | 40.0       |             | A     |
| Maximum Reverse Recovery Time<br>IF=0.5A, IR=1A, IRR=0.25A                                              | Trr             | 35         |             | ns    |
| Peak Forward Surge Current 8.3 ms Single<br>Half Sine Wave Superimposed on Rated<br>Load (JEDEC Method) | IFSM            | 220        |             | A     |
| Instantaneous Forward Voltage<br>per Diode@TA=25 °C                                                     | IF=5A<br>IF=20A | Typ        | Max         | V     |
|                                                                                                         |                 | 0.82       | --          |       |
|                                                                                                         |                 | 0.95       | 1.15        |       |
| Maximum DC Reverse Current @TA=25 °C<br>at Rated DC Blocking Voltage @TA=125 °C                         | IR              | 10<br>500  |             | μA    |
| Operating and Storage Temperature Range                                                                 | Tj, Tstg        | -55 ~ +150 |             | °C    |
| Typical thermal resistance (Note 1)                                                                     | RthJC           | 2          | 4           | °C/W  |

Note: 1. Thermal resistance junction to case, lead and ambient in accordance with JESD-51.  
Unit mounted on glass-epoxy substrate with 1oz/ft<sup>2</sup> 20x20 mm copper pad per pin with heatsink

## RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

FIG.1 - FORWARD CURRENT DERATING CURVE

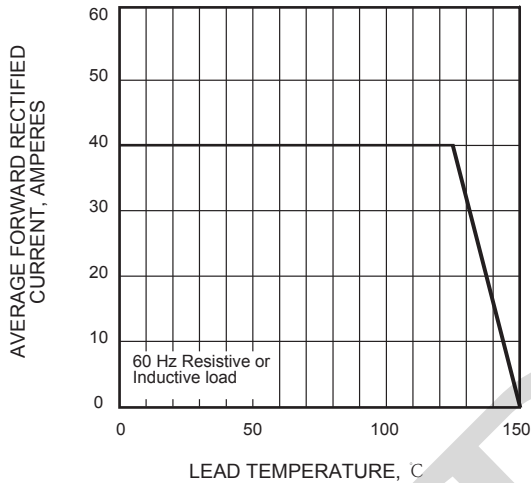


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

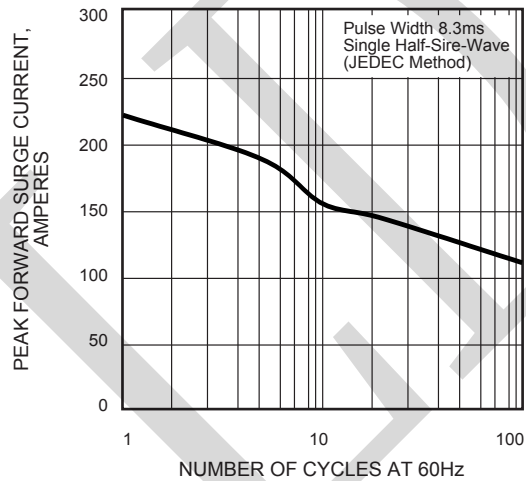


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

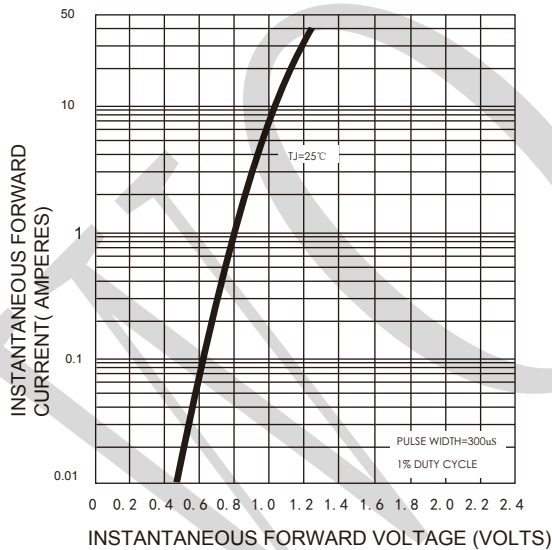
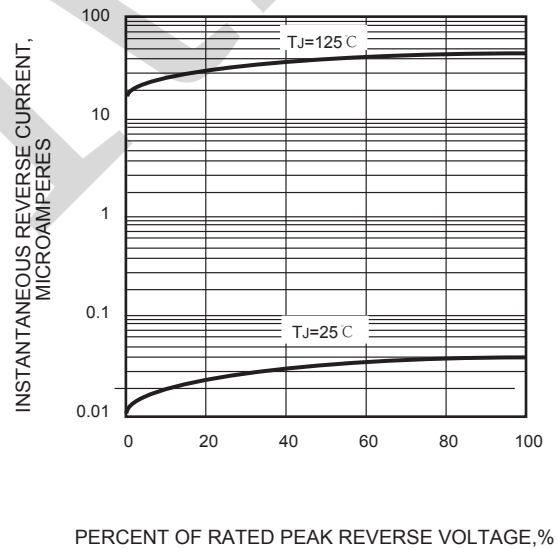


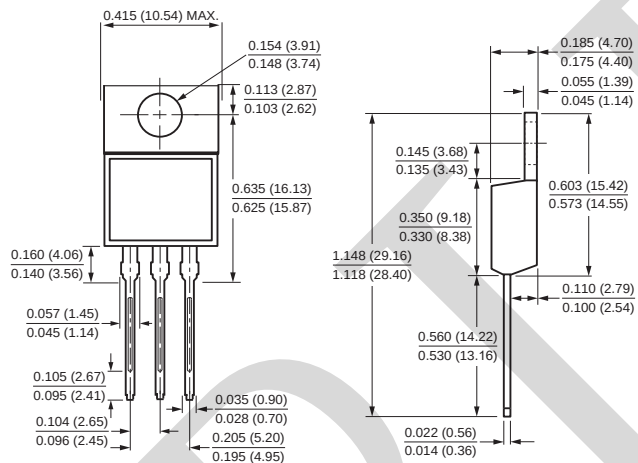
FIG.4 - TYPICAL REVERSE CHARACTERISTICS



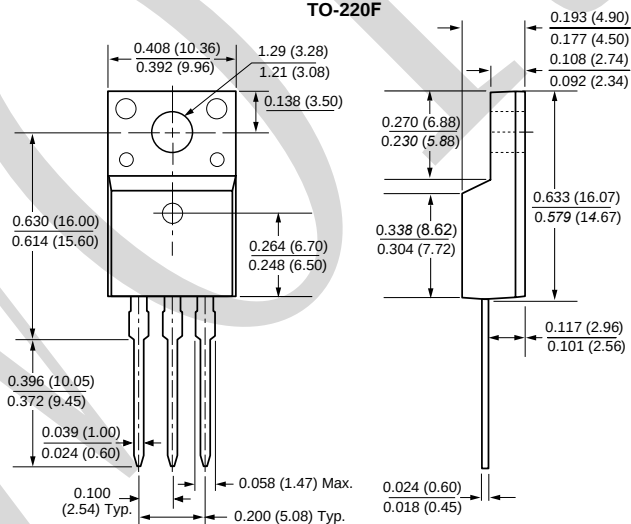
## PACKAGE OUTLINE DIMENSIONS

Note:unit: mm

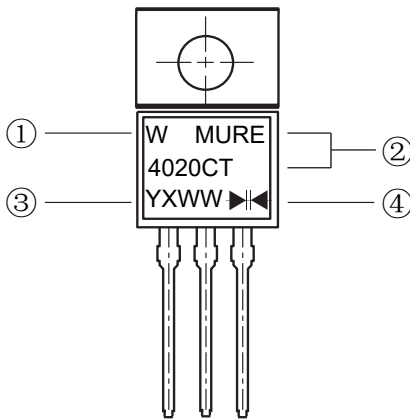
TO-220AB



TO-220F



## Marking Information



①W : Company's trademark

②Product model : MURE4020CT or MURE4020CTF

③PDC information :

Y X WW

WW:Week code(01 to 53)

X:Internal identification code

Y:Year code(ex:0=2020)

④▶◀ Double wafer