

Epitaxial Superfast Recovery Rectifier

TO-220AC
MURE30120ACT



TO-220ACF
MURE30120ACF



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	MURE30120ACT	MURE30120ACF	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	1200		V
Maximum RMS voltage	VRMS	840		V
Maximum DC Blocking Voltage	VDC	1200		V
Maximum Average Forward Rectified Current	I(AV)	30.0		A
Maximum Reverse Recovery Time IF=0.5A, IR=1A, IRR=0.25A	Trr	50		ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	300		A
Instantaneous Forward Voltage per Diode@TA=25 °C	VF	Typ	Max	V
		IF=5A	--	
		IF=15A	2.95	
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	IR	10 500		μA
Isolation voltage 50Hz@R.M.S, t=0.5S, Iiso:0.5mA(max)	VISO	2500		V
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +150		°C
Typical thermal resistance (Note 2)	RthJC	1.5		°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/ft² 20x20 mm copper pad per pin with heatsink

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

FIG.1 - FORWARD CURRENT DERATING CURVE

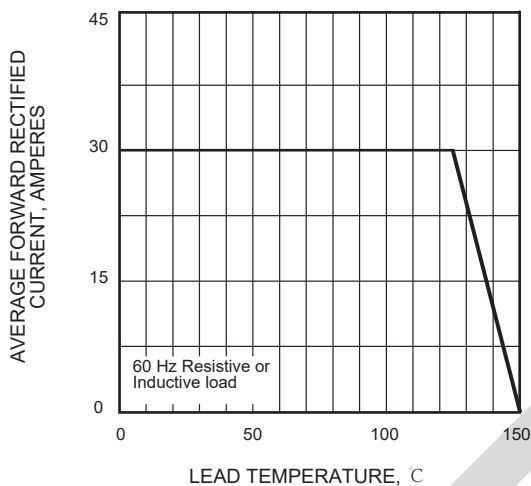


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

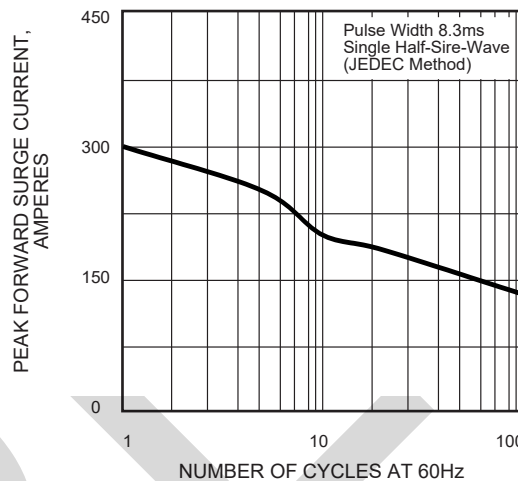


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

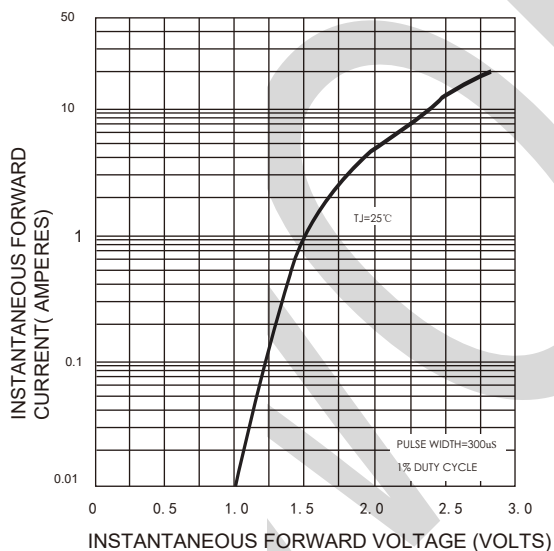
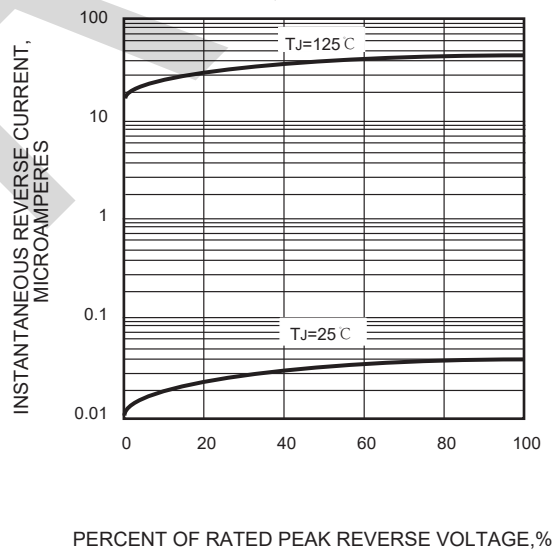
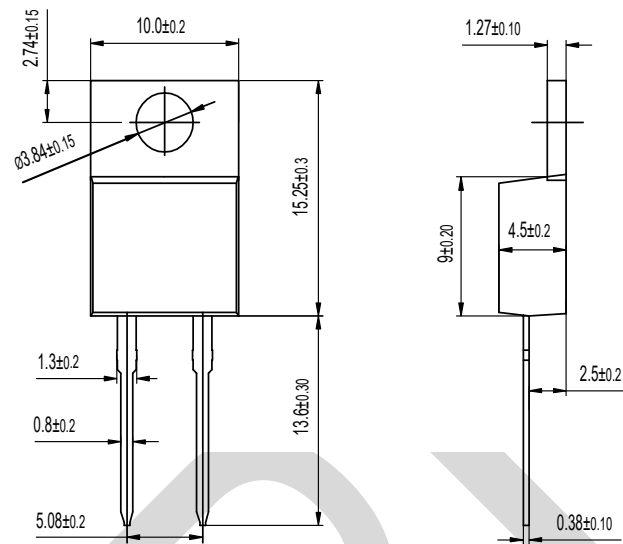


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

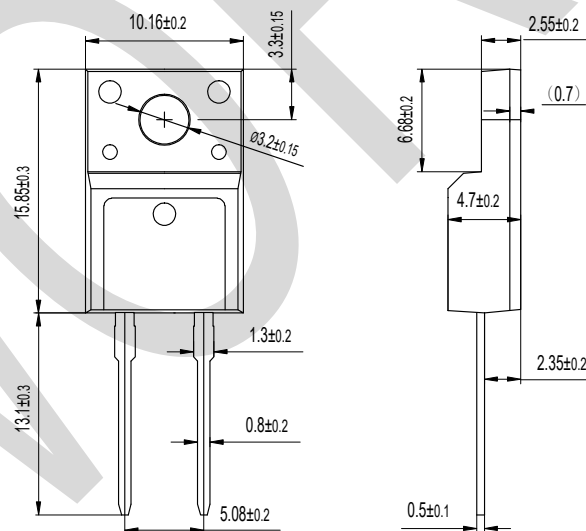


PACKAGE OUTLINE DIMENSIONS

Note:unit: mm



TO-220AC Dimensions in millimeters



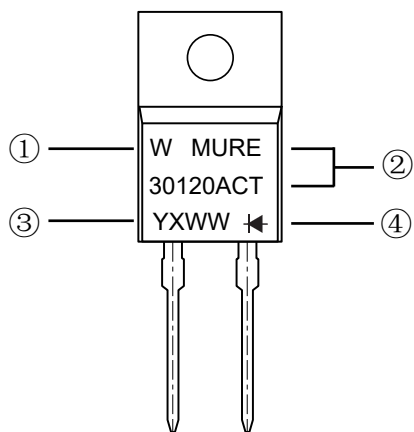
TO-220ACF Dimensions in millimeters

MURE30120ACT

MURE30120ACF

12-Nov-2022

Marking Information



①W : Company's trademark

②Product model : MURE30120ACT
or MURE30120ACF

③PDC information :

Y X WW

WW:Week code(01 to 53)

X:Internal identification code

Y:Year code(ex:0=2020)

④ Single wafer