

Epitaxial Superfast Recovery Rectifier

MURE8T50ACT-SG
TO-220ACT



PIN1  PIN2

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	MURE8T50ACT-SG		Units
Maximum Repetitive Peak Reverse Voltage	VRRM	500		V
Maximum RMS voltage	VRMS	350		V
Maximum DC Blocking Voltage	VDC	500		V
Maximum Average Forward Rectified Current	I(AV)	8.0		A
Reverse Recovery Time. IF=0.5A, IR=1A, IRR=0.25A	Trr	20		ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	90		A
I ² t rating for fusing (1ms< t < 10ms)	I ² t	33.6		A ² S
Instantaneous Forward Voltage per Diode@TA=25 °C	VF	Typ	Max	V
		IF=2A	1.55	
		IF=8A	1.75	
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	IR	5 250		μA
Typical Junction Capacitance (Note1)	Cj	50		pF
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +150		°C
Typical thermal resistance (Note 2)	RthJC	6.0		°C/W

Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

2. 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 - TYPICAL FORWARD CURRENT DERATING CURVE

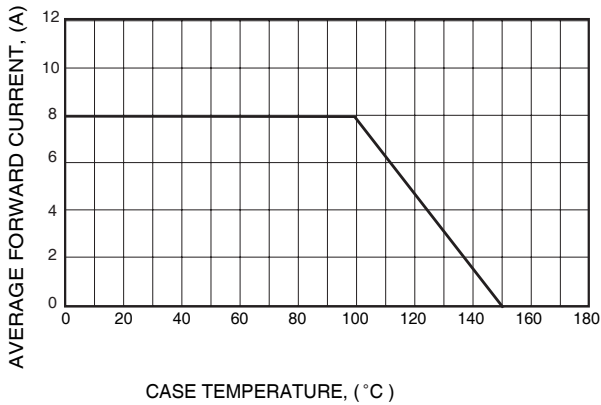


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

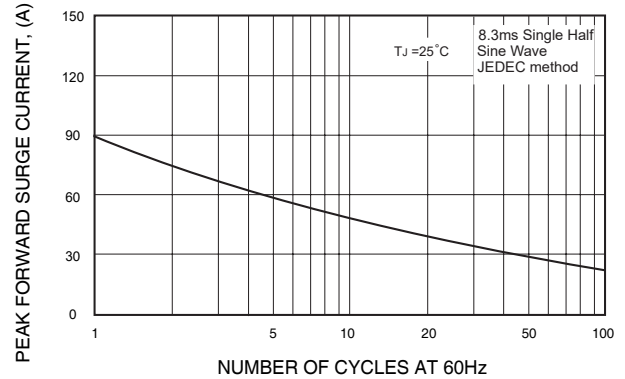


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

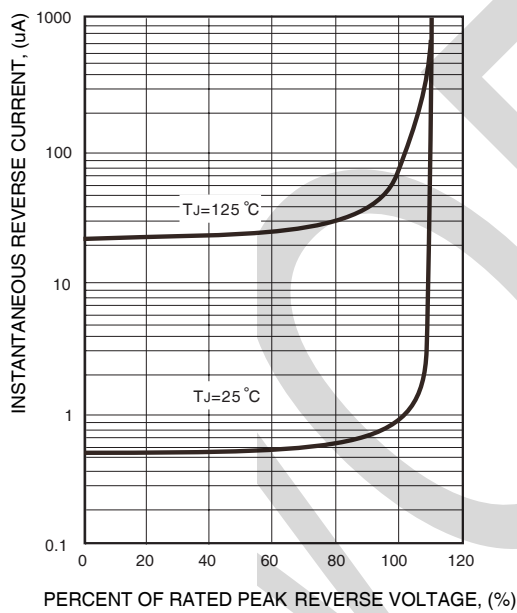
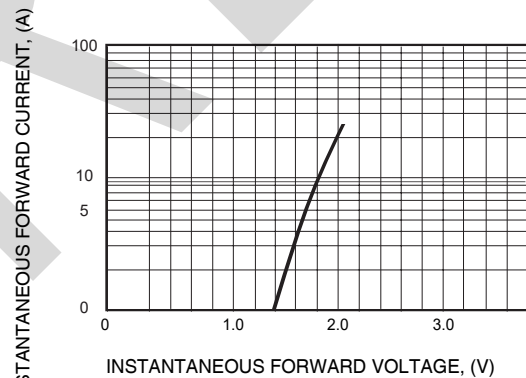
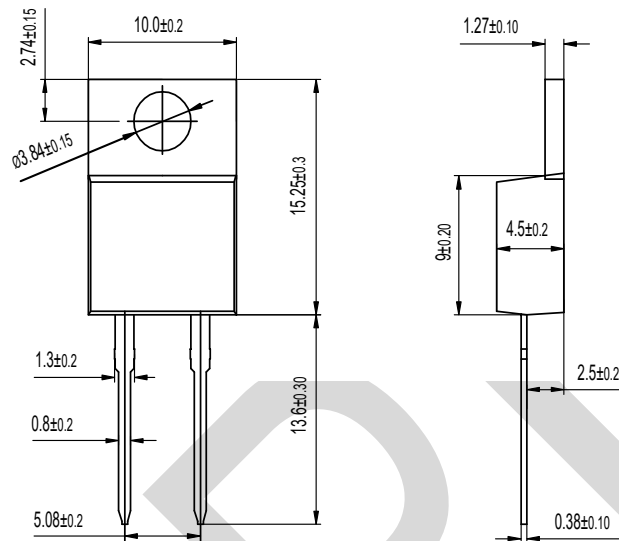


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

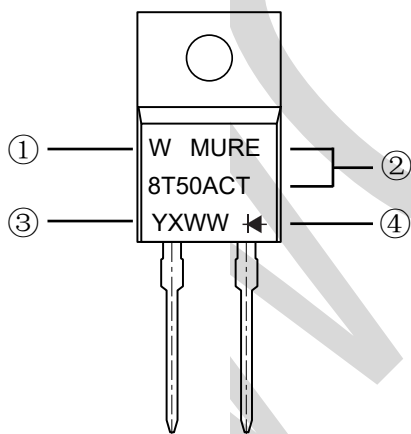


PACKAGE OUTLINE DIMENSIONS

TO-220ACT Dimensions in millimeters



Marking Information



- ① W : Company's trademark
- ② Product model : MURE8T50ACT-SG or MURE8T50ACT
- ③ PDC information:
 - Y X WW
 - WW: Week code (01 to 53)
 - X: Internal identification code
 - Y: Year code (ex: 0=2020)
- ④ Single wafer