

Epitaxial Superfast Recovery Rectifier

MURE10120ACT

TO-220ACT



PIN2 PIN1

PIN2  PIN1

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
- Weight: 0.054ounce, 1.549gram

Parameter	Symbols	MURE10120ACT	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)	10.0	A
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	200	A
I ² t rating for fusing (1ms< t < 10ms)	I ² t	166	A ² S
Maximum Forward Voltage at 10A and 25 °C	VF	2.10	V
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	2.5	°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

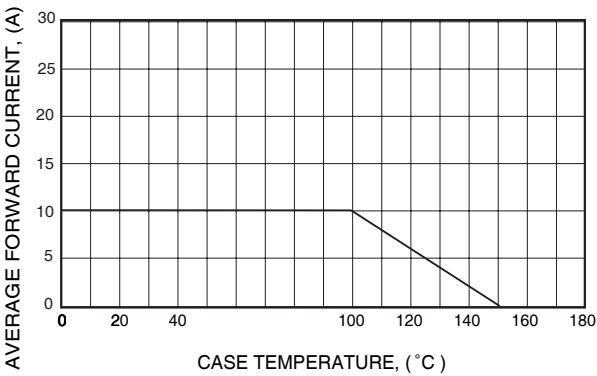


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

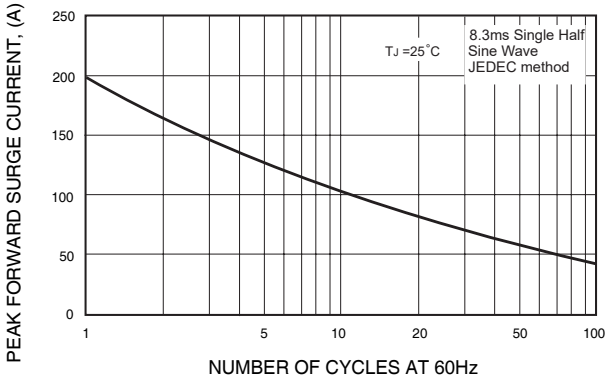


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

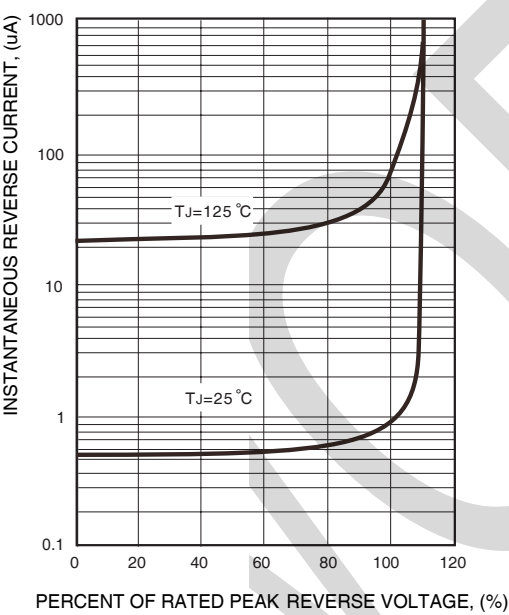
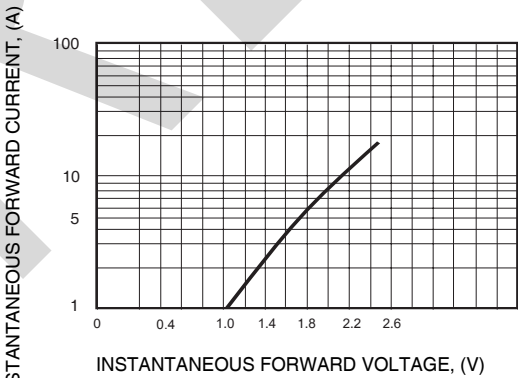


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

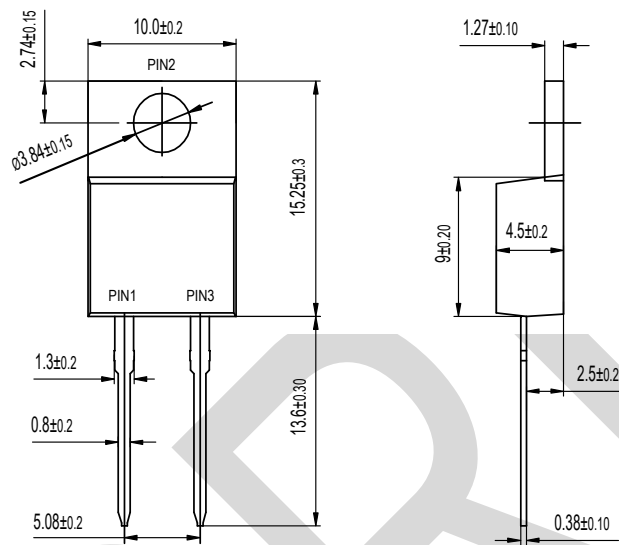


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03-JUN-2023

PACKAGE OUTLINE DIMENSIONS

Note:unit In(mm)

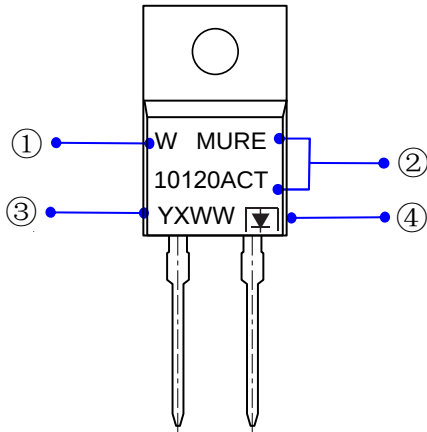


TO-220ACT Dimensions in millimeters

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Marking Information



- ①W : Company's trademark
②Product model : MURE10120ACT

③PDC information:

Y X WW

WW:Week code(01 to 53)

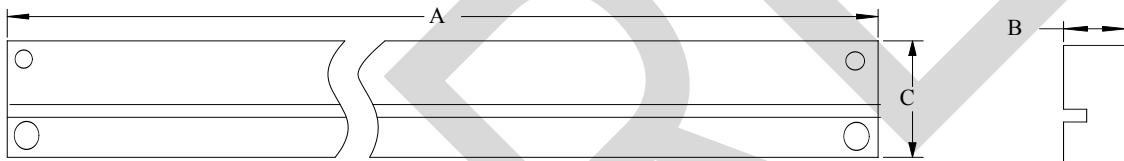
X:Internal identification code

Y:Year code(ex:0=2020)

- ④  Single wafer

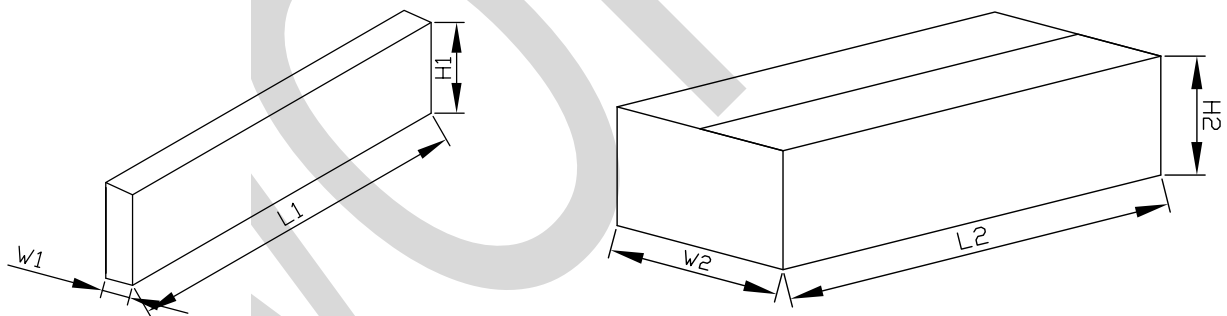
Packaging Information

1.Tube Dimensions



2.Inside Box

3.Outside Box



Packaging Information

NO	UNIT	Tube Dimensions			Inside Box			Outside Box		
Size	mm	A	B	C	L1	W1	H1	L2	W2	H2
		530	7	33	570	46	150	590	260	180
QTY	PCS	50PCS/Tube			Smallest package,1000PCS, 20 tube in total			5,000PCS/carton,5 boxes in total		
Note	Tolerance ≤20mm,±3mm; 21-100mm,±5mm; 101-500mm,±10mm									