

MURA/L/R20xxCT Series



Super Fast Recovery Rectifiers

Reverse Voltage: 200 to 600 Volts

Forward Current: 20.0 Ampere

RoHS Device

Halogen Free

Features

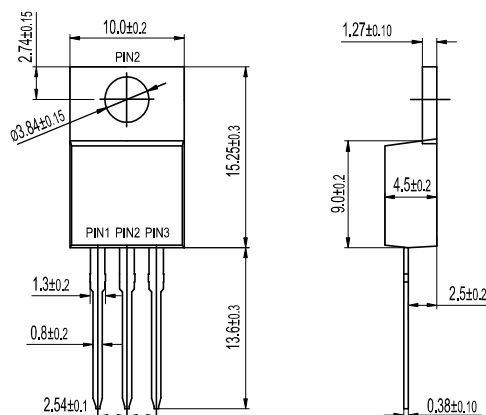
- Glass passivated chip junctions
- Super fast recovery time for switching mode application
- High Forward Surge Capability
- Low Reverse Current
- Lead free in compliance with EU RoHS 2011/65/EU directive

Mechanical data

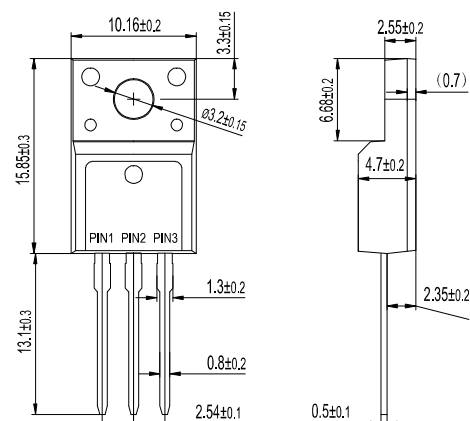
- Leads: Solderable per mil-std-202, Method 208
- Polarity: as marked
- Mounting torque: 5 in-lbs maximum
- Terminals: Puretin plated
- Weight: TO-220AB 1.85 grams
ITO-220AB 1.70 grams

Package outline

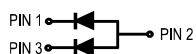
Dimensions in millimeters



TO-220AB
MURA20XXCT
MURL20XXCT
MURR20XXCT



ITO-220AB
MURA20XXFCT
MURL20XXFCT
MURR20XXFCT



Common Anode
suffix "MURA"



Positive Tandem
suffix "MURL"



Negative Tandem
suffix "MURR"

Company reserves the right to improve product design, functions and reliability without notice.

Rev:1.0

Maximum Ratings and Electrical Characteristics

Ratings 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	Symbols	MURA2020CT/2020FCT	MURA2040CT/2040FCT	MURA2060CT/2060FCT	Units
		MURL2020CT/2020FCT	MURL2040CT/2040FCT	MURL2060CT/2060FCT	
		MURR2020CT/2020FCT	MURR2040CT/2040FCT	MURR2060CT/2060FCT	
Maximum repetitive peak reverse voltage	V _{RRM}	200	400	600	V
Maximum RMS voltage	V _{RMS}	140	280	420	V
Maximum DC blocking voltage	V _{DC}	200	400	600	V
Maximum average forward rectified current	I _{F(AV)}	20			A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	300			A
Max. forward voltage at 10A	V _F	1.0	1.3	1.7	V
Maximum DC reverse current T _a = 25°C at rated DC blocking voltage T _a = 125°C	I _R	5 250			μA
Typical thermal resistance TO-220AB ITO-220AB	R _{θJC}	2.5 4.0			°C/W
Maximum reverse recovery time (Note 1)	t _{rr}	35			ns
Operating junction temperature range	T _j	-55 ~ +150			°C
Storage temperature range	T _{stg}	-55 ~ +150			°C

Notes: 1. Test conditions I_F = 0.5A, I_R = 1A, I_{rr} = 0.25A.

2. Thermal resistance from junction to case.

Rating and Characteristic Curves

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

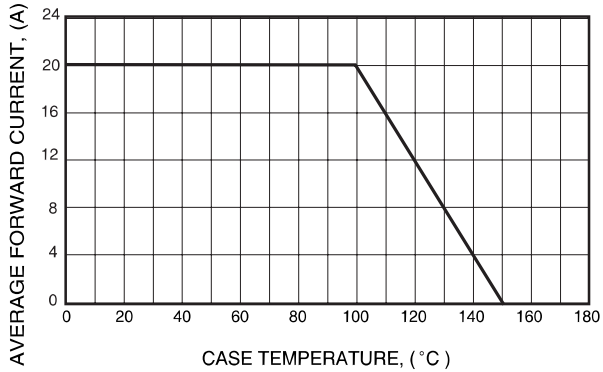


FIG. 3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

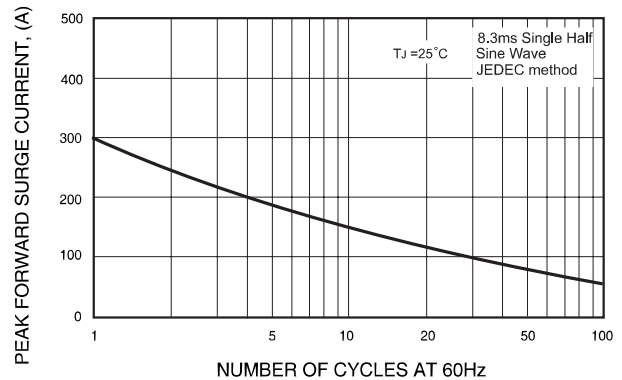


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

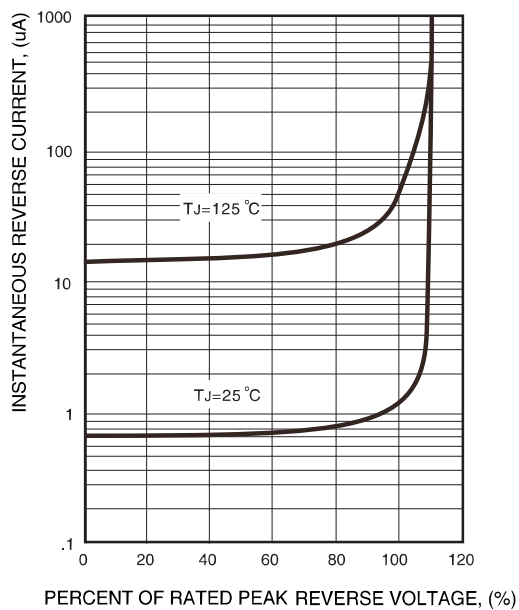


FIG. 2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

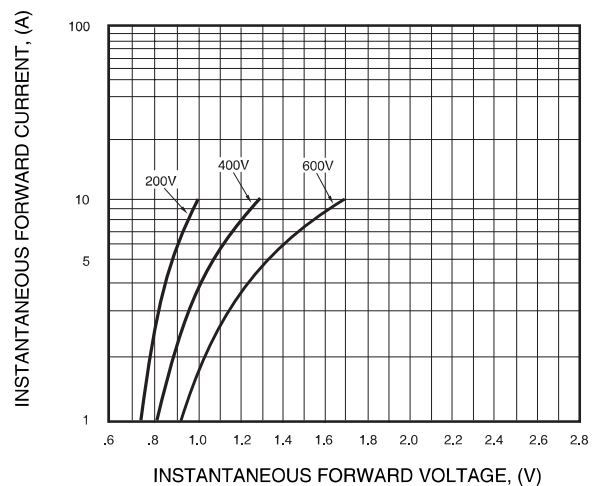
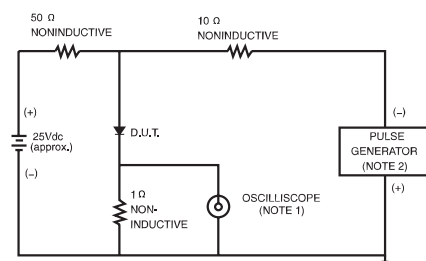
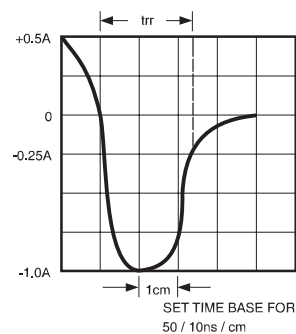


FIG. 6- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS

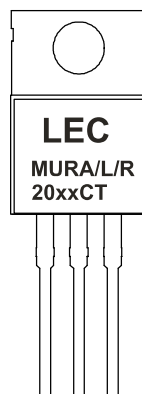


NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.



Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
TO-220AB	50	1,000



Standard Packaging

Case Type	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
ITO-220AB	50	1,000

