

Super Fast Rectifiers

Features

- · Low cost.
- · Diffusde junction
- · Low forward voltage drop.
- · High current capability.
- Easily cleaned with Alcohol, Isopropanol and Similar solvents.
- · RoHS compliant package

Mechanical Data

- · Case: ITO-220AB
- · Molding compound meets UL 94 V-0 flammability
- · RoHS compliant, and commercial grade
- Terminals: Matte tin plated leads, solderable per

J-STD-002 and JESD 22-B102

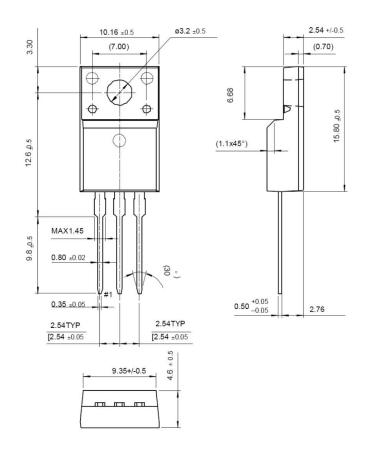
- · Polarity: As marked
- · Weight: 0.08ounce, 2.24 grams

Packing & Order Information

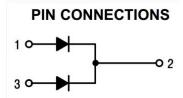
50/Tube; 1,000/Box



RoHS COMPLIANT



Graphic symbol



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings (Tc=25°C unless otherwise noted)						
Parameter	Symbol	MURF1020CT	Unit			
Maximum repetitive peak reverse voltage	VRRM	200	V			
Working peak reverse voltage	VRWM	140	V			
Maximum DC blocking voltage	VDC	200	V			
Maximum average forward rectified current	IF(AV)	10	А			
Peak forward surge current						
8.3ms single half sine-wave superimposed	IFSM	60	Α			
on rated load (JEDEC Method)						
Junction Capacitance	Cj	70	pF			
Operating junction temperature range	TJ	-50 to +150	°C			
Storage temperature range	TSTG	-50 to +150	°C			



Super Fast Rectifiers

Electrical characteristics (Tc=25°C unless otherwise noted)								
Parameter	Symbol	Value		Unit				
raiailletei		Syllibol	Typical	Max	Offic			
Instantaneous forward voltage at IF	=8A, TA=25°C	VF	0.92	0.98	V			
Maximum reverse current	Tj=25°C	ID	5 250		uA			
at working peak reverse voltage	Tj=150°C	IR IR			uA			
Reverse Recovery Time		Ter	25		ns			
IF=0.5A,IR=1A, Irr=0.25A		Trr						

Thermal characteristics (Tc=25°C unless otherwise noted)							
Parameter		Value	Unit				
Typical thormal registance	Symbol	MURF1020CT	°C/W				
Typical thermal resistance	Rthja	3.0					

Notes:

(1) Pulse test: 300 µs pulse width, 1 % duty cycle

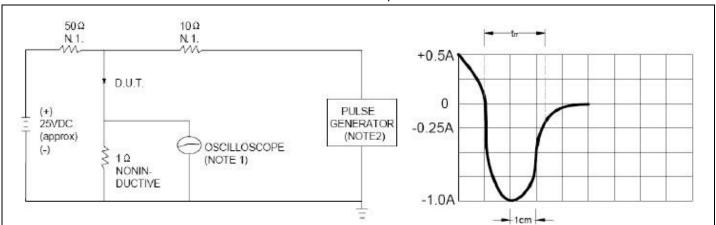
(2) Pulse test: Pulse width ≤ 40 ms

(3) Cj Measured at 1.0MHz and reverse voltage of 4.0V DC



Super Fast Rectifiers

■TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



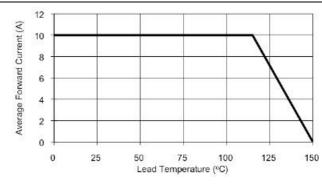
NOTES:

1.RISE TIME = 7ns MAX.INPUT

IMPEDANCE =1M . 22pF. SET TIME BASE FOR 10/20 ns/cm

2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50

FIG.1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



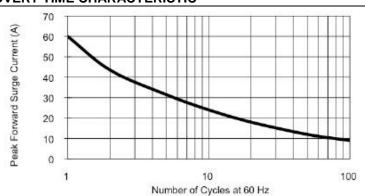


FIG.2-MAXIMUM FORWARD CURRENT DERATING CURVE

100 100 1 100 1 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1 1.1 1.2 1.3 1.4 1.5 Forward Voltage (V)

FIG.3- MAXIMUM FORWARD SURGE CURVE



Super Fast Rectifiers

Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE. Bruckewell Technology Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Bruckewell"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product. Bruckewell makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Bruckewell disclaims

- (i) Any and all liability arising out of the application or use of any product.
- (ii) Any and all liability, including without limitation special, consequential or incidental damages.
- (iii) Any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Bruckewell's knowledge of typical requirements that are often placed on Bruckewell products in generic applications.

Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time.

Product specifications do not expand or otherwise modify Bruckewell's terms and conditions of purchase, including but not limited to the warranty expressed therein.