

# **MUR1060FCT** GOOD-ARK Electronics

# **10A,600V Ultrafast Recovery Rectifier**

#### **Features**

- FRED Wafer Construction
- Low forward drop voltage, low power loss
- High Surge Current Capability
- Plastic package has underwriters Laboratory Flammability Classification 94V-0
- Halogen-free according to IEC 61249-2-21

### **Applications**

- SMPS
- Lighting
- UPS

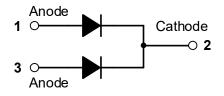
### Mechanical Data

- Case: Epoxy, Molded
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes: 260°C Max. for 10 sec
- Shipped 50 units per plastic tube

Maximum Ratings & Electrical Characteristics(TA=25°C unless otherwise noted)				
Parameter	Symbol	MUR1060FCT	Unit	
Maximum repetitive peak reverse voltage	Vrrm	600	V	
Working peak reverse voltage	VRWM	600	V	
Maximum DC blocking voltage	VDC	600	V	
Maximum average forward rectified current	lf(AV)	10	А	
Peak forward surge current,8.3ms single half sine-wave superimposed on rated load per diode	IFSM	60	А	
Voltage rate of change (rated VR)	dv/dt	10000	V/uS	
Operating junction temperature range	TJ	-55 to +150	°C	
Storage temperature range	Тѕтс	-55 to +150	°C	









Electrical Specifications(TA=25°C unless otherwise noted)						
Parameter	Symbol	Test Conditions	Тур	Max	Unit	
	VF	IF=5A, TJ =25℃	1.40	1.60	- V	
Forward drop voltage <sup>(Note1)</sup>		IF=5A, TJ =125℃	-	1.50		
		IF=10A, TJ =25℃	-	-		
		IF=10A, TJ =125℃	-	-		
Deverse leekers eurrent @V/D (Note2)	IR	TJ <b>=25</b> ℃	-	10	uA	
Reverse leakage current @VR <sup>(Note2)</sup>		TJ =100℃	-	500		
Reverse recovery time	trr	IF=0.5A, IR=1.0A, IRR=0.25A	-	50	ns	

Thermal-Mechanical Specifications (TA=25°C unless otherwise noted)				
Parameter	Symbol	Тур	Unit	
Thermal Resistance, Junction to Case	Rejc	4.0	°C /W	
Thermal Resistance, Junction to Ambient	Reja	62.5	°C /W	

Note:

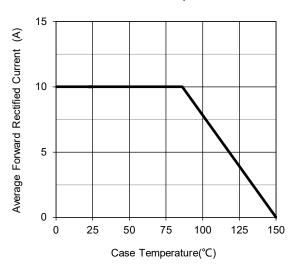
- 1. Pulse test with PW=0.3ms, duty cycle=2%
- 2. Pulse test with PW=30ms

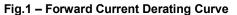


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#### **Ratings and Characteristics Curves**

 $(T_A = 25^{\circ}C \text{ unless otherwise noted})$ 





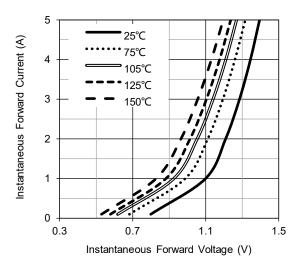


Fig.3 – Typical Forward Voltage Characteristics

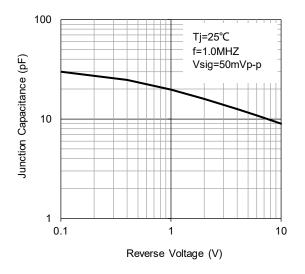
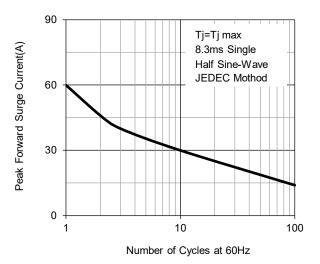


Fig.5 – Typical Junction Capacitance





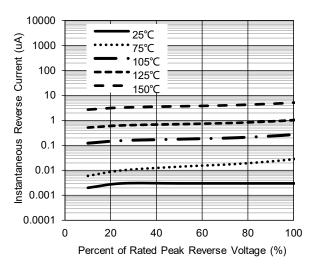
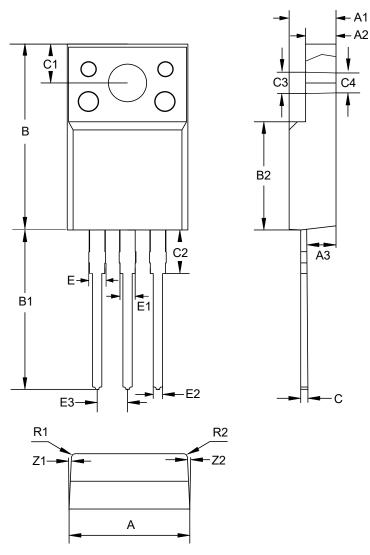


Fig.4 – Typical Reverse Current Characteristics



## Package Outline Dimensions (Unit: millimeters)

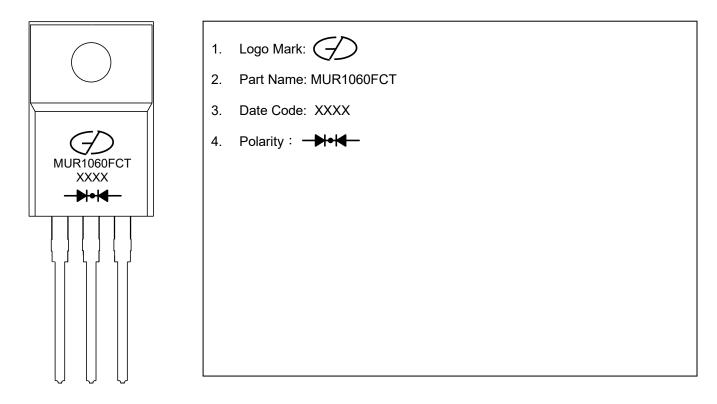
ITO-220AB



ITO-220AB							
	Min.	Nom.	Max.		Min.	Nom.	Max.
А	9.9	10.1	10.3	C3	3.0	3.2	3.4
A1	4.6	4.7	4.8	C4	3.0		
A2	2.44	2.54	2.64	Е	1.15	1.35	1.55
A3	2.25	2.45	2.65	E1	1.17	1.27	1.37
В	15.5	15.8	16.1	E2	0.7	0.8	0.9
B1	13.25	13.55	13.85	E3	2.44	2.54	2.64
B2	9.0	9.2	9.4	R1		0.3	
С	0.5	0.6	0.7	R2		0.3	
C1	3.1	3.3	3.5	Z1		3°	
C2	3.0	3.3	3.6	Z2		3°	



### Marking Outline



### **Revision History**

Document Version	Date of release	Description of changes
Rev.A	2013.12.04	Released Datasheet
Rev.B	2021.01.22	Modify document format
Rev.C	2022.05.16	Update ratings and characteristics curves



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