MUR880(F)

Ultrafast Recovery Planar Diode
Reverse Voltage 800 Volts Forward Current 8 Amperes

2018

Features

- FRED (Planar) wafer construction
- Ultrafast recovery time
- Low forward voltage drop, low power losses
- High efficiency operation
- Plastic package has underwriters Laboratory Flammability Classification 94V-0

Package: TO-220-AC Package: ITO-220-AC

Mechanical Data

- Case: Epoxy, Molded
- Weight: 1.9grams（approximately）
- 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

(T_A=25℃ unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	MUR880(F)	UNIT
Maximum repetitive peak reverse voltage			V_{RRM}	800	V
Working peak reverse voltage			V_{RWM}	800	V
Maximum DC blocking voltage			V_{DC}	800	V
Maximum average forward rectified current at T_C=105°C total device per diode			$I_{F(AV)}$	8	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode			I_{FSM}	150	A
Voltage rate of change（rated V_R）			Dv/dt	10000	V/us
Operating junction temperature range			T_J	—55 to+150	°C
Storage temperature range			T_{STG}	—55 to+150	°C
Maximum Reverse Recover Time （If=0.5Amp, IR=1.0Amp,Irec=0.25Amp）	T_{rr}		T_{rr}	60	ns
Maximum instantaneous forward voltage per leg	I_F=8A I_F=8A	T_C=25℃ T_C=125℃	V_F	1.80 1.70	V
Maximum reverse current per leg at working peak Reverse voltage		T_J=25℃ T_J=100°C	I_R	10 500	uA uA

Thermal Characteristics T_A=25℃ unless otherwise noted

Symbol	Parameter	TYP（TO-220-AC）	TYP（ITO-220-AC）	Unit
RθJC	Thermal Resistance, Junction to Case per Leg	2.0	4.0	°C /W
RθJA	Thermal Resistance, Junction to Ambient per Leg	62.5	62.5	°C /W

Note：Pulse test:300us pulse width, duty cycle=2%

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Ratings and Characteristics Curves

(T_A = 25℃ unless otherwise noted)

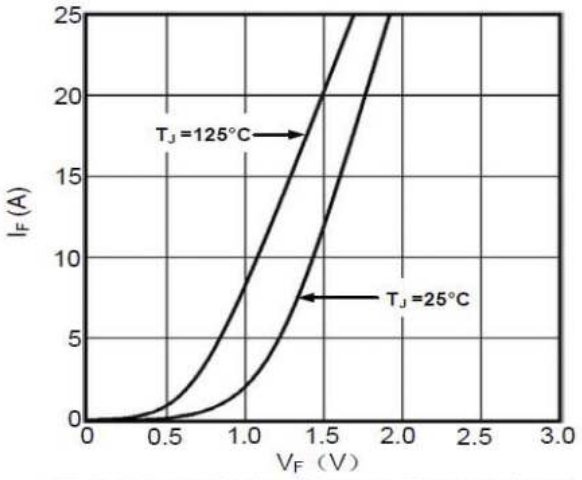

Fig1. Forward Voltage Drop vs Forward Current

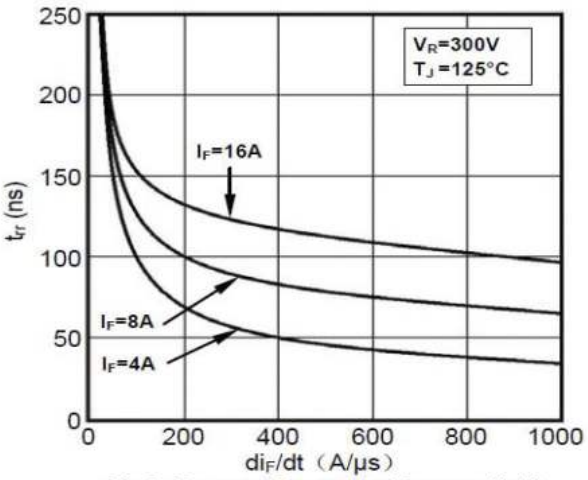

Fig2. Reverse Recovery Time vs di_F/dt

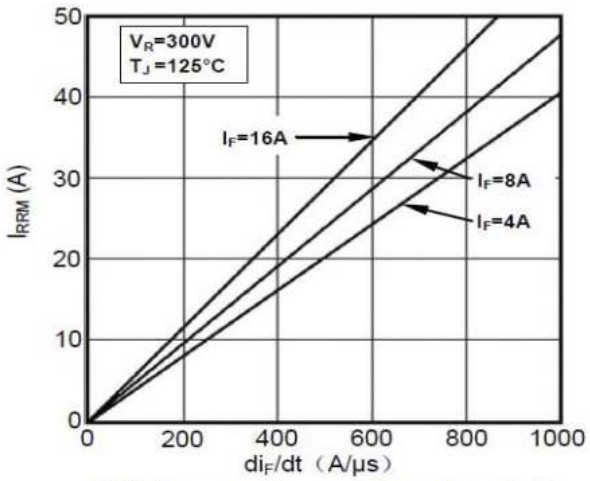

Fig3. Reverse Recovery Current vs di_F/dt

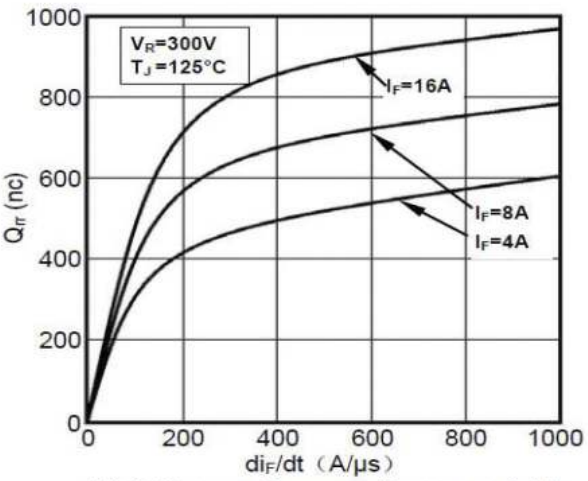

Fig4. Reverse Recovery Charge vs di_F/dt

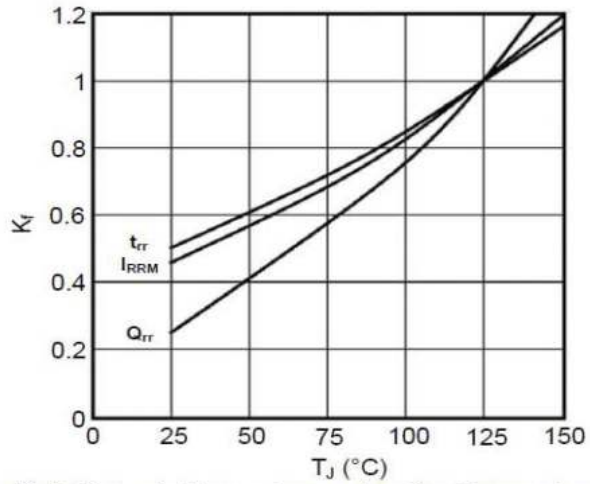

Fig5. Dynamic Parameters vs Junction Temperature

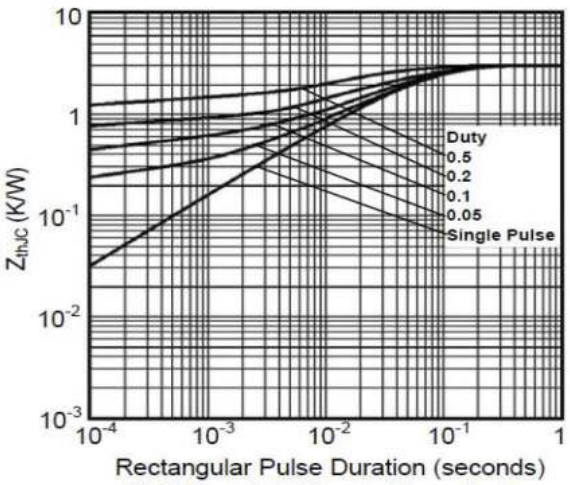

Fig6. Transient Thermal Impedance

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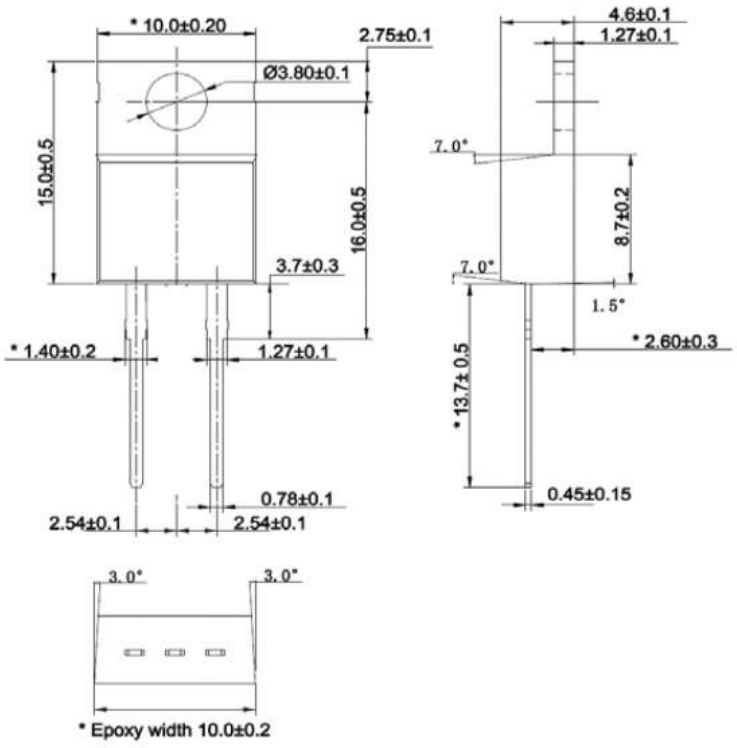
Package Outline Dimensions

Unit: millimeters

TO-220-AC



ITO-220-AC