



Ultra Fast Recovery EPI Diodes Reverse Voltage 200 to 600 Volts Forward Current 30 Amperes

Features

- For surface mounted applications
- High frequency operation
- High surge forward current capability
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long-term reliability
- Solder dip 275 °C max. 7s, per JESD 22-B106

Mechanical Data

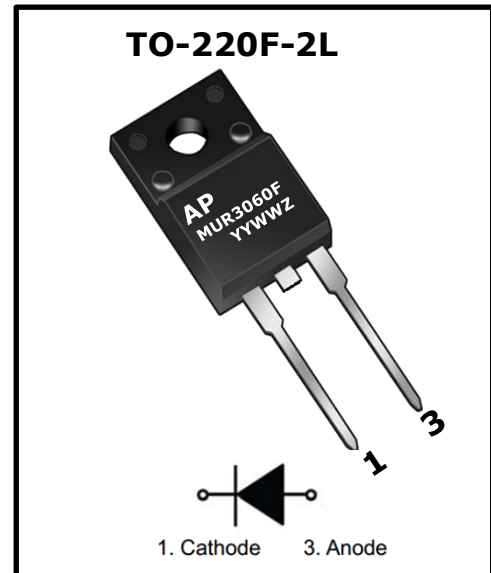
Case : Case: TO-220F-2L

Terminals : Lead solderable per MIL-STD-202, Method 208

Lead free finish, RoHS compliant

Case Material: "Green" molding compound, UL flammability classification 94V-0, "Halogen-free".

Weight : 1.855gram



Maximum Ratings Characteristics

TA = 25°C unless otherwise specified

Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter		Symbol	MUR3020F	MUR3040F	MUR3060F	Unit
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 at T _L = 110°C		I _{F(AV)}	30			A
Peak Forward Surge Current 8.3ms Single Half sine Wave Superimposed on Rated Load		I _{FSM}	300			A
Maximum Instantaneous Forward Voltage at 30A		V _F	1.3	1.4	1.7	V
Maximum Reverse Recovery Time ⁽¹⁾		trr	35			ns
Maximum DC Reverse Current at Rated DC Blocking Voltage	T _a = 25°C	I _R	10			uA
	T _a = 125°C		500			
Maximum Thermal Resistance Junction to Case		R _{θJc}	4			°C/W
Operating Junction temperature Range		T _J	-55 ~ +125			°C
Storage Temperature Range		T _{STG}	-55 ~ +150			°C

Note

(1) $I_F=0.5A, I_{rr}=0.25A$



Characteristics Curves

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

Fig.1 Typical Forward Current Derating Curve

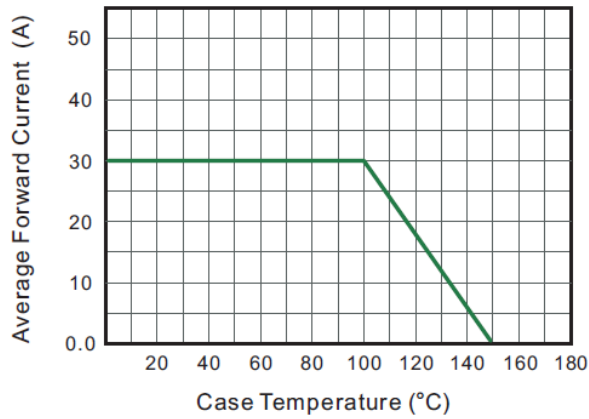


Fig.2 Typical Reverse Characteristics

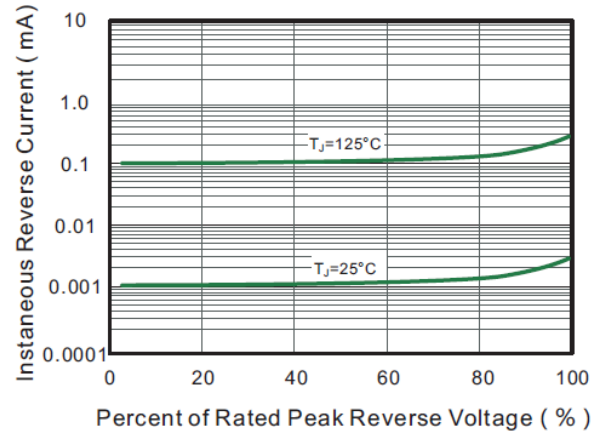


Fig.3 Typical Forward Characteristic

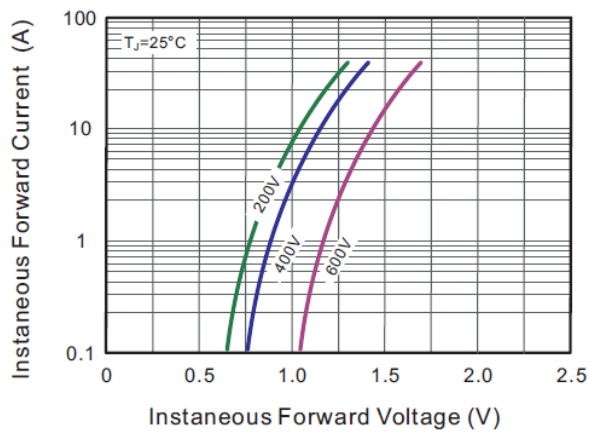
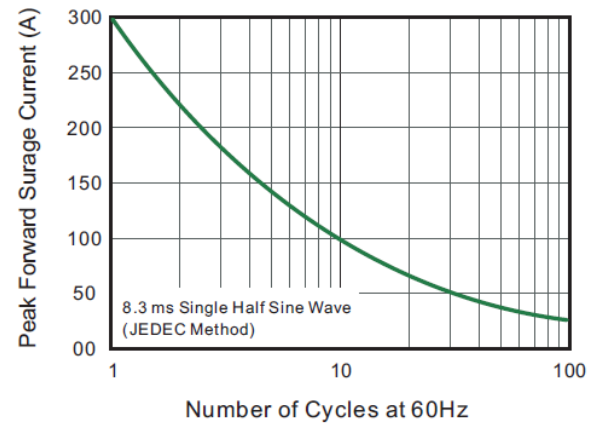
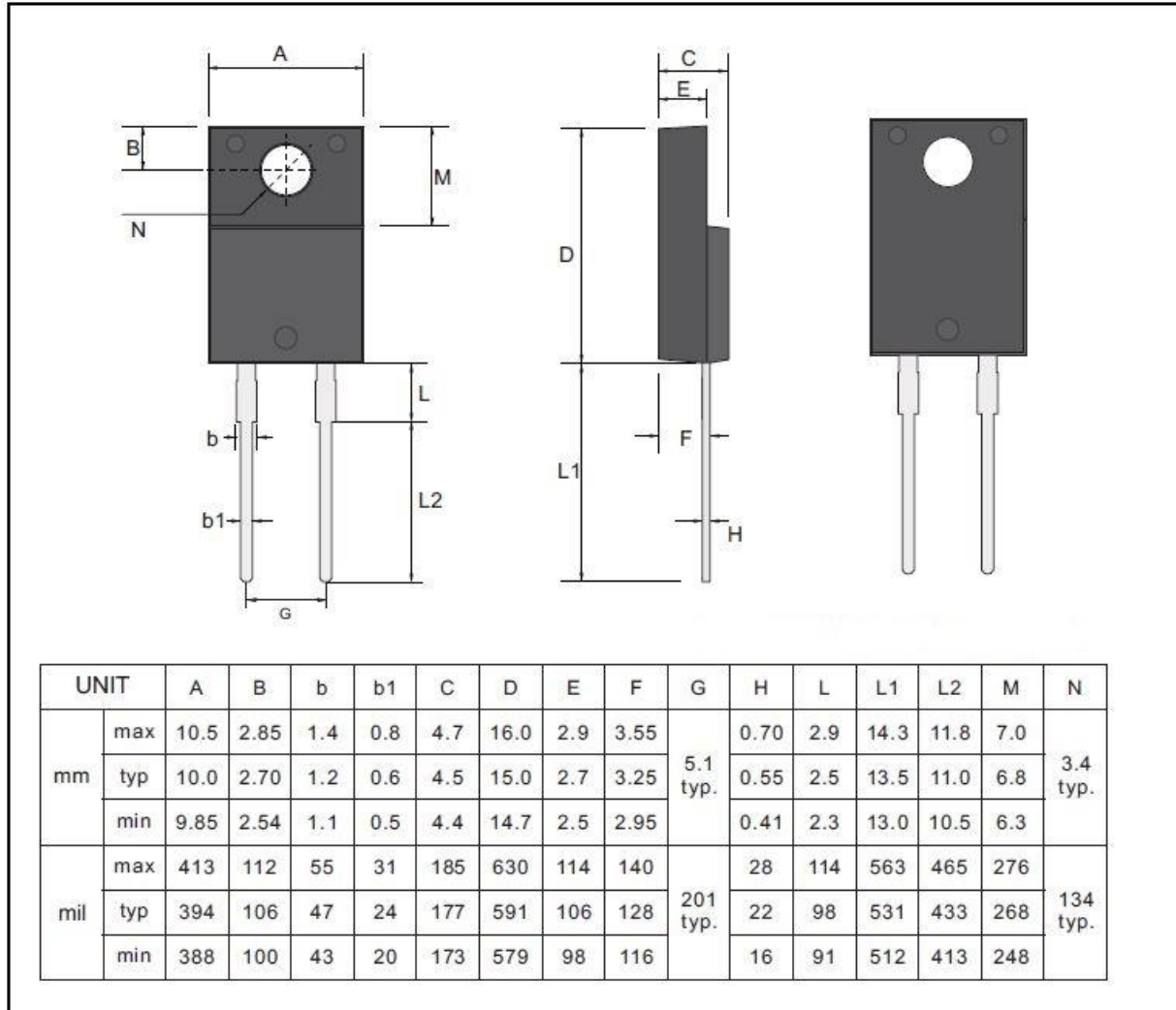


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current





Package dimension : TO-220F-2L





Revision History

No	Date	Contents
0	2020-04-12	Initial Brief Datasheet Release

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