

MUR520/MUR520F

Super Fast Recovery Rectifier
Reverse Voltage 200V Forward Current 5A

Features

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



MUR520
Package: TO-220-AC



MUR520F
Package: ITO-220-AC

Mechanical Data

- Case: Epoxy, molded
- Weight: 1.9grams (approximately)
- Finish: all external surfaces corrosion resistant and terminal leads readily solderable
- Lead Temperature for soldering purposes: 260°C Max. for 10 sec
- 50 units per plastic tube



Maximum Ratings and Electrical Characteristics (T_A = 25°C unless otherwise noted)

PARAMETER		TEST CONDITIONS		SYMBOL	VALUE	UNIT
Maximum Repetitive Peak Reverse Voltage				V _{RRM}	200	V
Working Peak Reverse Voltage				V _{RWM}	200	V
Maximum DC Blocking Voltage				V _{DC}	200	V
Maximum Average Forward Rectified Current at T _c =105°C Total Device per Diode				I _{F(AV)}	5	A
Peak Forward Surge Current 8.3ms Single Half Sine-wave Superimposed on Rated Load per Diode				I _{FSM}	90	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 (I _F =0.5Amp, I _R =1.0Amp,I _{rec} =0.25Amp)				T _{rr}	35	ns
Maximum Instantaneous Forward Voltage per Leg		I _F =5A I _F =5A	T _C =25°C T _C =125°C	V _F	0.96 0.88	V
Maximum Reverse Current per Leg at Working Peak Reverse Voltage		T _J =25°C T _J =100°C		I _R	10 500	uA uA
Thermal Characteristics T _A =25°C unless otherwise noted						
Symbol	Parameter	TYP.(MUR520)		TYP.(MUR520F)		Unit
R _{θJC}	Thermal Resistance, Junction to Case per Leg	2.0		4.0		°C/W
R _{θJA}	Thermal Resistance, Junction to Ambient per Leg	62.5		62.5		°C/W

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

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

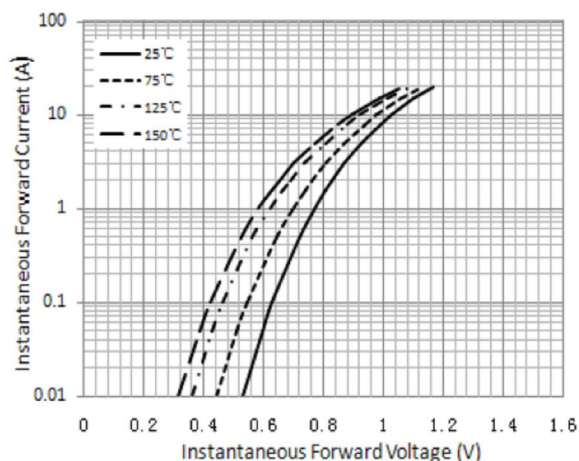


Figure 1. Typical Instantaneous Forward Characteristics

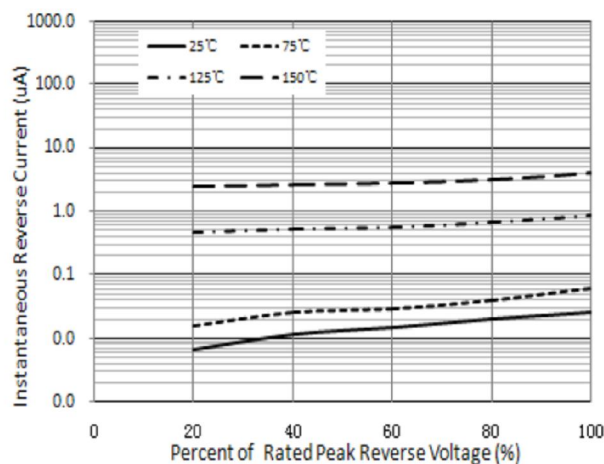


Figure 2. Typical Reverse Characteristics

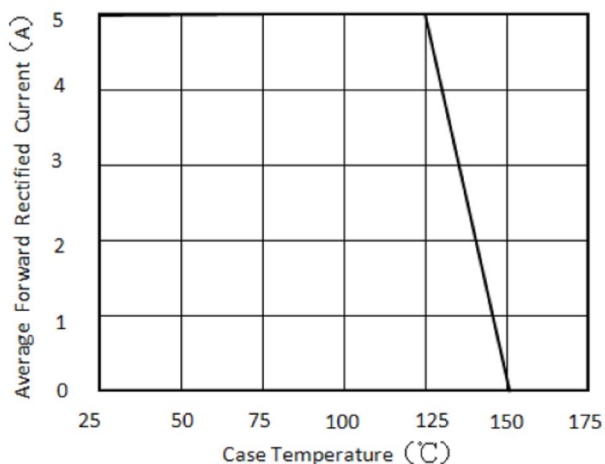


Figure 3. Forward Current Derating Curve

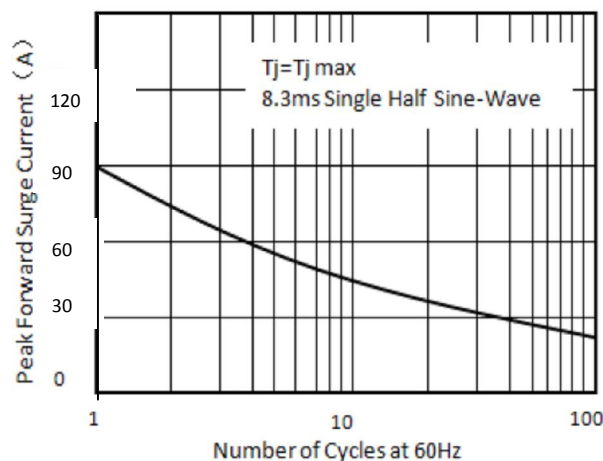


Figure 4. Maximum Non-Repertive Peak Forward Surge Current

