

GSMUR1540/GSMUR1540F

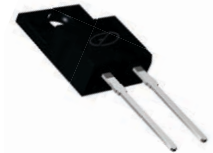
Ultrafast Recovery Rectifiers
 Reverse Voltage 400V Forward Current 15 A

Features

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



GSMUR1540
 Package: TO-220-AC



GSMUR1540F
 Package: ITO-220-AC

Mechanical Data

- Case: Epoxy, molded
- Weight: 1.9 grams (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



Schematic Diagram

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

Parameter	Symbol	Test Conditions	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V _{RRM}	-	400	V
Working Peak Reverse Voltage	V _{RWM}	-	400	V
Maximum DC Blocking Voltage	V _{DC}	-	400	V
Maximum Average Forward Rectified Current at T _C =105°C Total Device Per Diode	I _{F(AV)}	-	15	A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed On Rated Load Per Diode	I _{FSM}	-	200	A
Voltage Rate Of Change (Rated VR)	Dv/dt	-	10000	V/us
Maximum Reverse Recover Time (I _F =0.5A, I _R =1.0A, I _{rec} =0.25A)	T _{rr}	-	50	ns
Maximum Instantaneous Forward Voltage Per Leg	V _F	I _F =15A, T _C =25°C	1.3	V
		I _F =15A, T _C =125°C	1.2	
Maximum Reverse Current Per Leg At Working Peak Reverse Voltage	I _R	T _J =25°C	10	uA
		T _J =100°C	500	
Operating Junction Temperature Range	T _J	-	-55 to +150	°C
Storage Temperature Range	T _{STG}	-	-55 to +150	°C
Thermal Characteristics T_A=25°C unless otherwise noted				
Parameter	Symbol	GSMUR1540 Typ	GSMUR1540F Typ	Unit
Thermal Resistance, Junction To Case Per Leg	R _{θJC}	2	4	°C/W
Thermal Resistance, Junction To Ambient per Leg	R _{θJA}	62.5	62.5	

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

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

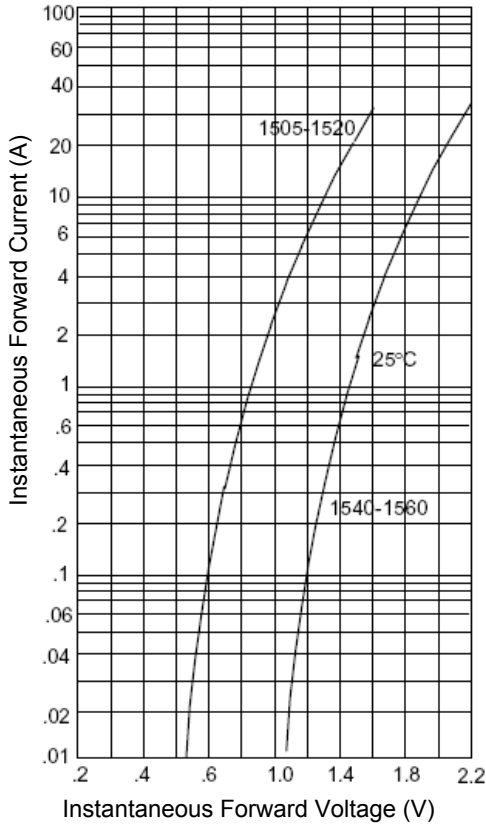


Figure 1. Typical Forward Voltage

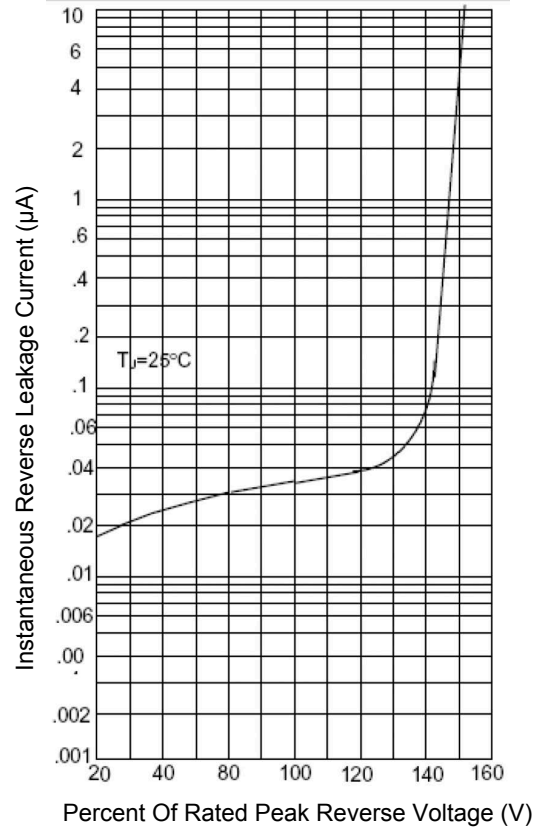


Figure 2. Typical Reverse Current

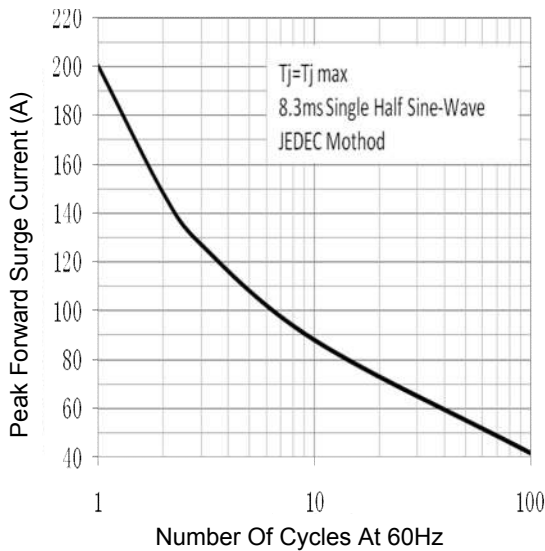


Figure 3. Peak Forward Surge Current vs. Number Of Cycles At 60Hz

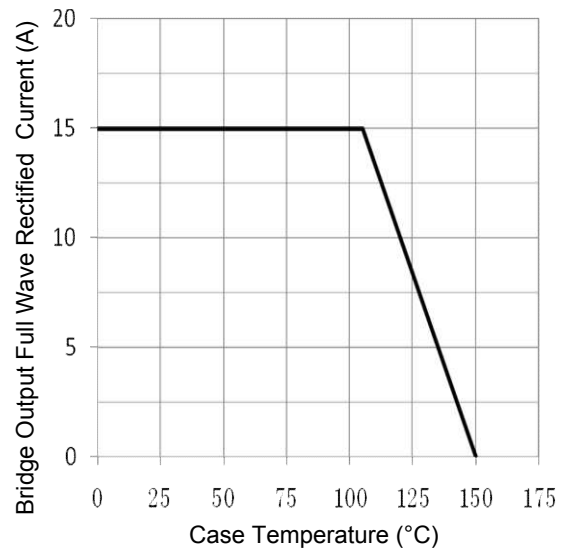
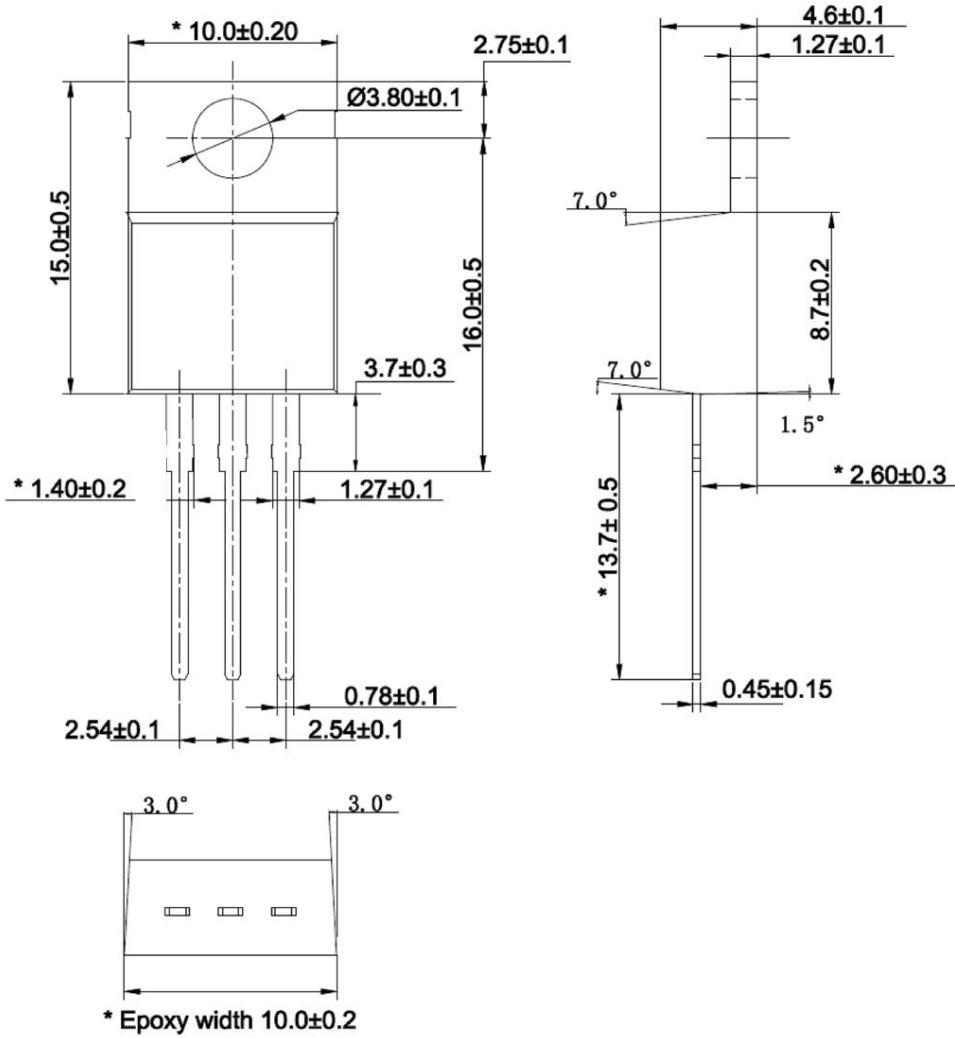


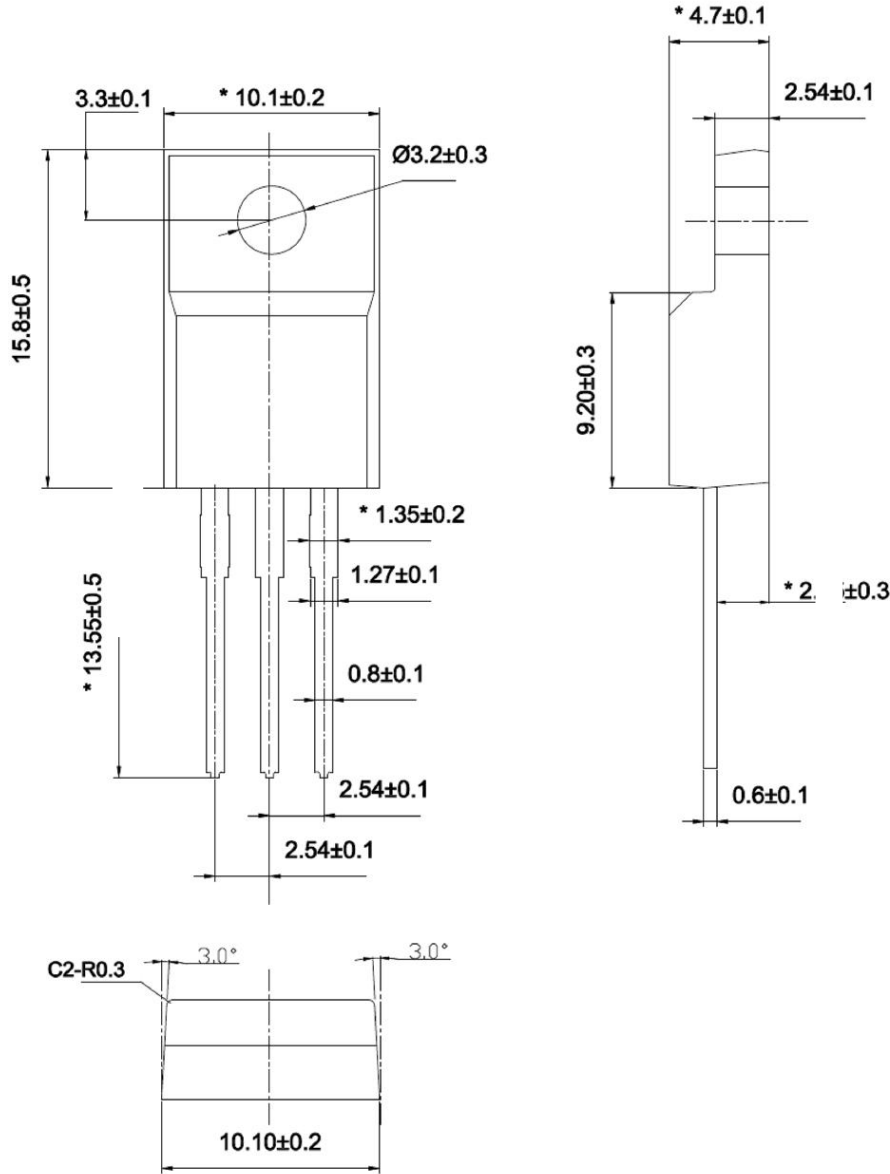
Figure 4. Bridge Output Full Wave Rectified Current vs. T_C

Package Outline Dimensions (TO-220-AC)



Unit: mm

Package Outline Dimensions (ITO-220-AC)



Unit: mm