



MUR1540(F)

Ultrafast Recovery Planar Diode

Reverse Voltage 400 Volts Forward Current 15 Amperes

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

(TA=25°C unless otherwise noted)

PARAMETER	TEST CONDITIONS		SYMBOL	MUR1540(F)	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 V _R)			D _{v/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}		T _{rr}	50	ns
Maximum instantaneous forward voltage per leg	I _f =15A	T _c =25°C	V _F	1.30	V
	I _f =15A	T _c =125°C		1.20	
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 TA=25°C unless otherwise noted

Symbol	Parameter	TYP (TO-220-AC)	TYP (ITO-220-AC)	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%



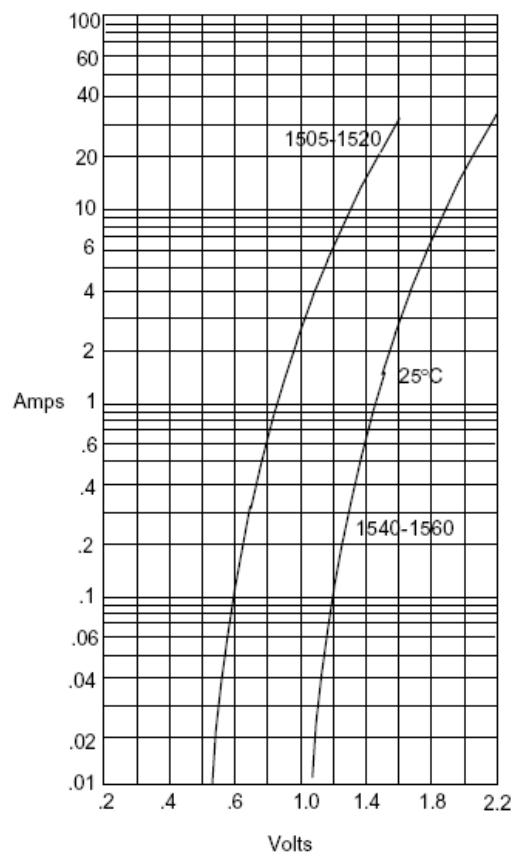
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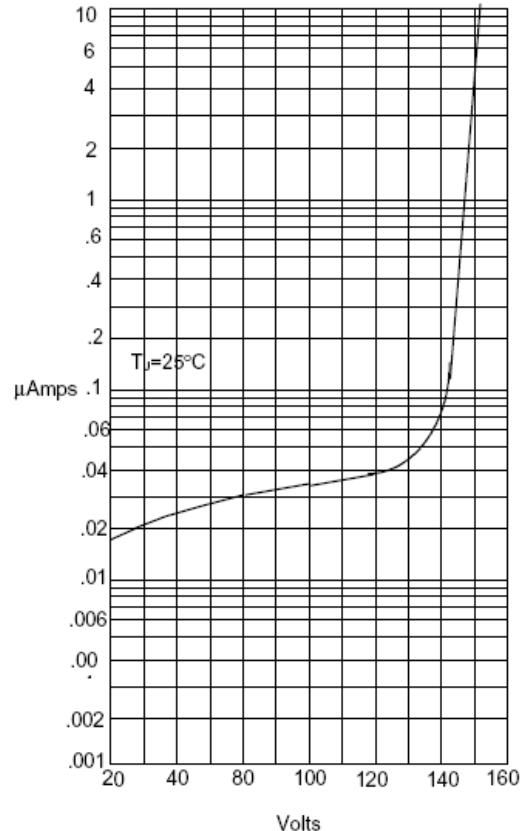
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Ratings and Characteristics Curves

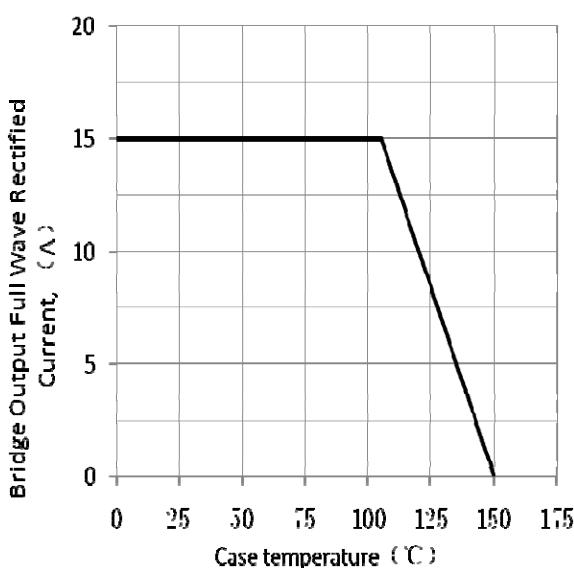
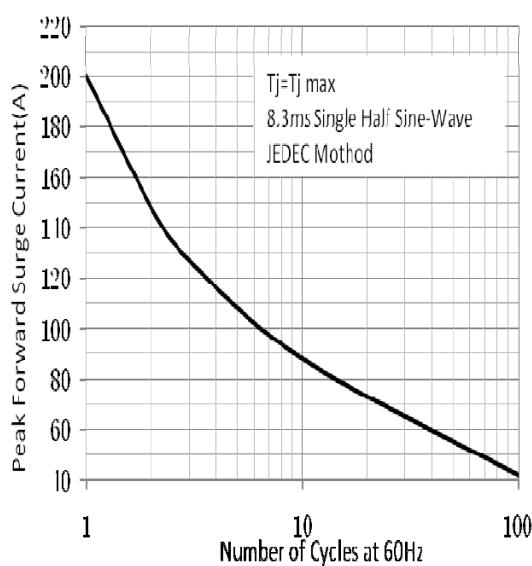
($T_A = 25^\circ\text{C}$ unless otherwise noted)



Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts



Instantaneous Reverse Leakage Current - MicroAmps versus
Percent Of Rated Peak Reverse Voltage - Volts





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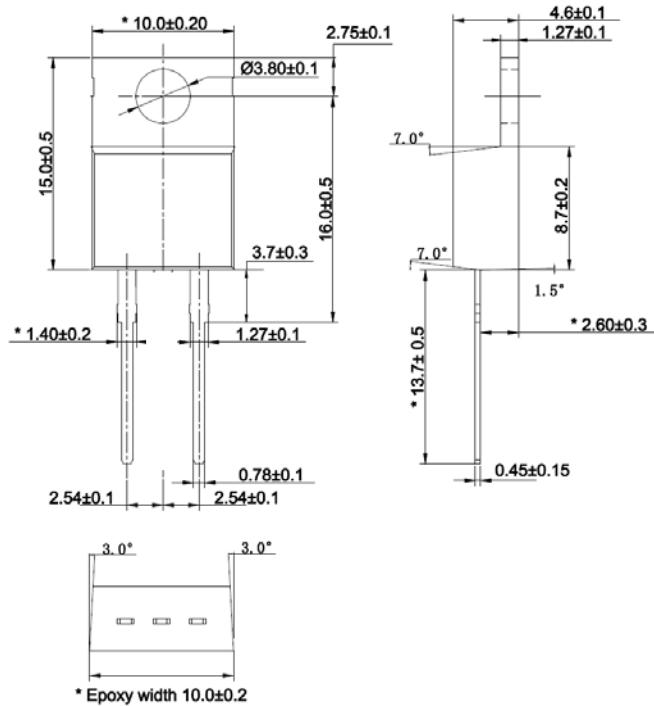
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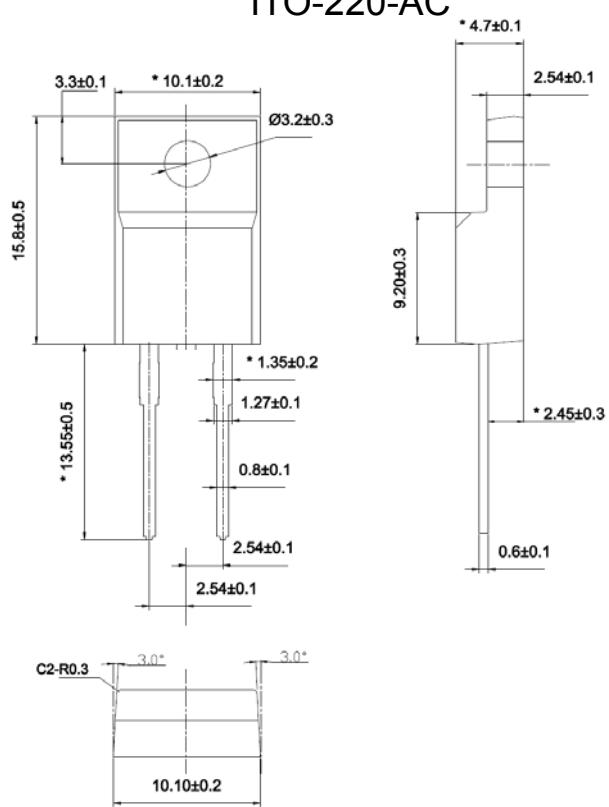
Package Outline Dimensions

Unit: millimeters

TO-220-AC



ITO-220-AC





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