



Glass passivated super fast rectifier

Reverse voltage 50 to 600 volts forward current 15.0 ampers

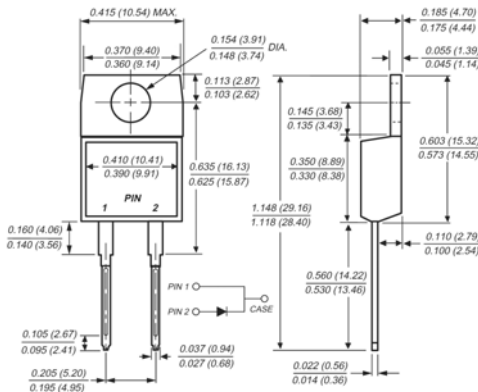
Features

- ◆ Superfast switching time for high efficiency
- ◆ Low reverse leakage current
- ◆ High surge capacity

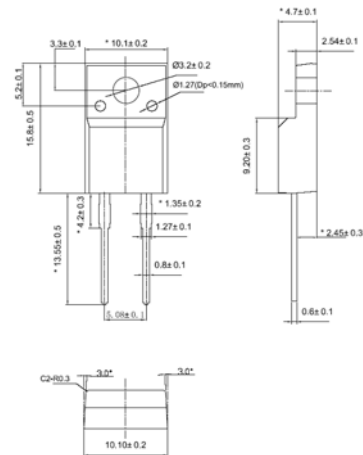
Mechanical Data

- ◆ Case: TO-220AB full molded plastic package
- ◆ Terminals: Lead solderable per MIL-STD-202, Method 208
- ◆ Polarity: As marked
- ◆ Standard packaging: Any
- ◆ Weight: 0.08 ounces, 2.24 grams

TO-220AC



TO-220FC



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	MUR1505/F	MUR1510/F	MUR1520/F	MUR1540/F	MUR1560/F	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	Volts
Maximum average forward rectified current at $T_c=110^\circ\text{C}$	$I_{F(AV)}$	15					Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150					Amps
Maximum instantaneous forward voltage at 15A	V_F	1.25			2.0		Volts
Maximum DC reverse current @ $T_c=25^\circ\text{C}$ at rated DC blocking voltage @ $T_j=100^\circ\text{C}$	I_R	10.0			1000		μA
Maximum reverse recovery time at $I_s=0.5\text{A}$, $I_r=1.0\text{A}$, $I_{tr}=0.25\text{A}$	t_{rr}	35			60		nS
Operating junction and storage temperature range	$T_{j, T_{STG}}$	-55 to +150					$^\circ\text{C}$

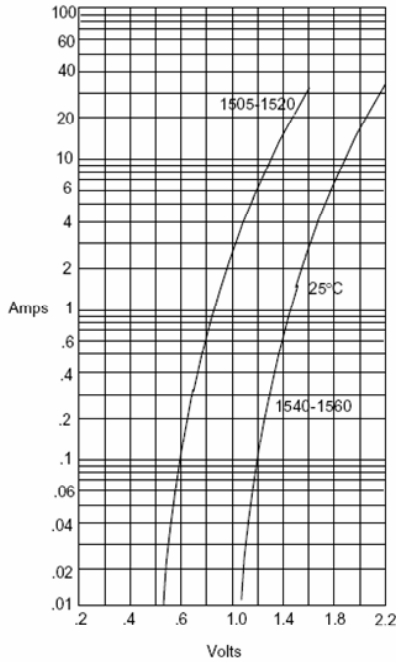
Notes 1. Pulse test: Pulse width 300 usec, Duty cycle 2%



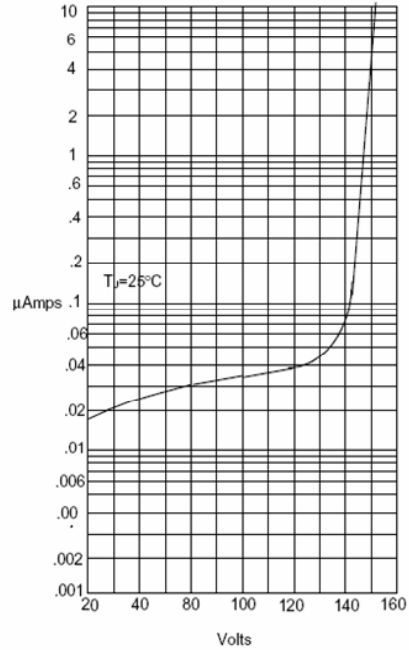
MUR1505/F ~ MUR1560/F

RATINGS AND CHARACTERISTIC CURVES

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



Instantaneous Forward Current - Amperes versus Instantaneous Forward Voltage - Volts



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

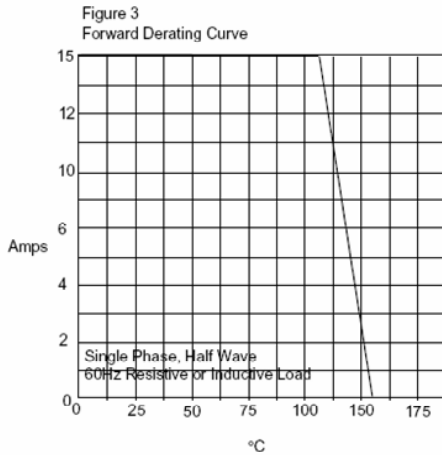


Figure 3
Forward Derating Curve

Average Forward Rectified Current - Amperes versus Case Temperature - $^\circ\text{C}$

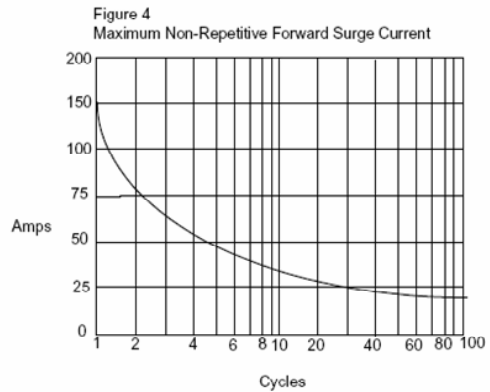


Figure 4
Maximum Non-Repetitive Forward Surge Current

Peak Forward Surge Current - Amperes versus Number Of Cycles At 60Hz - Cycles