

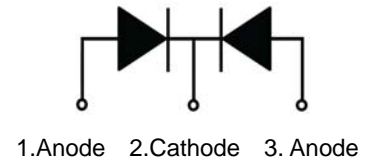
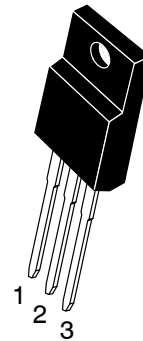


MURF2005ACTG THRU MURF2060ACTG

TO-220F

Features:

- High surge capacity
- Low Forward Voltage Drop.
- High Current Capability.
- Super Fast Switching Speed For High Efficiency



Marking Diagram



- Y = Year
- A = Assembly Location
- WW = Work Week
- MBRF20XXA = Specific Device Code

Absolute Maximum Ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	MURF 2005ACTG	MURF 2010ACTG	MURF 2015ACTG	MURF 2020ACTG	MURF 2030ACTG	MURF 2040ACTG	MURF 2060ACTG	Unit
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	V _{R(DC)}	50	100	150	200	300	400	600	V
Average Rectified Forward Current Total Device, (Rated V _R),	I _{F(AV)}	20							A
Nonrepetitive Peak Surge Current(Surge applied at rated load conditions half wave, single phase, 60 Hz)	I _{FSM}	200							A
Operating Junction Temperature and Storage Temperature	T _J , T _{stg}	-55 to +155							°C
Maximum Thermal Resistance, Junction-to-Case	R _{θJC}	3.0				2.0			°C/W

ELECTRICAL CHARACTERISTICS

Parameter	Symbol	MURF 2005ACTG	MURF 2010ACTG	MURF 2015ACTG	MURF 2020ACTG	MURF 2030ACTG	MURF 2040ACTG	MURF 2060ACTG	Unit
Forward Voltage (I _F = 20A, T _C = 25°C) (Note 1) (I _F = 20 A, T _C = 125°C)	V _F	0.975 0.895			1.30 1.00		1.70 1.50		V
Maximum Instantaneous Reverse Current (Note 1) (Rated DC Voltage, T _C = 25°C) (Rated DC Voltage, T _C = 125°C)	I _R	5 250			10 500				μ A
Maximum Reverse Recovery Time (I _F = 1.0 A, di/dt = 50 A/μs) (I _F = 0.5 A, I _R = 1.0 A, I _{REC} = 0.25 A)	T _{RR}				35 25				ns



Typical Characteristics

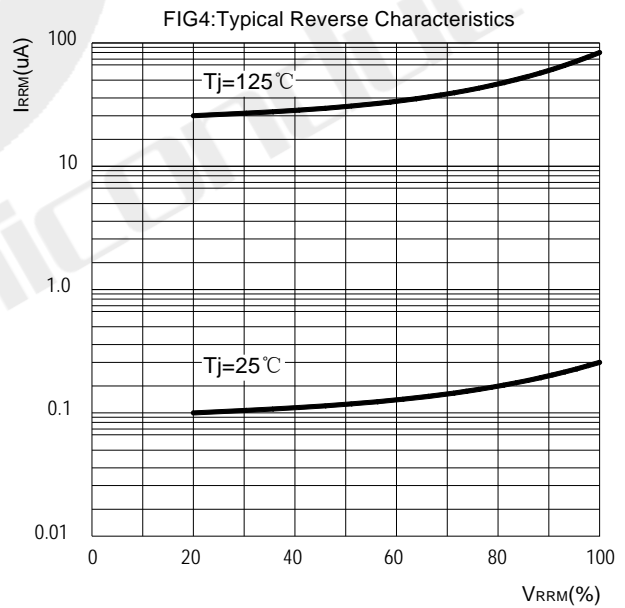
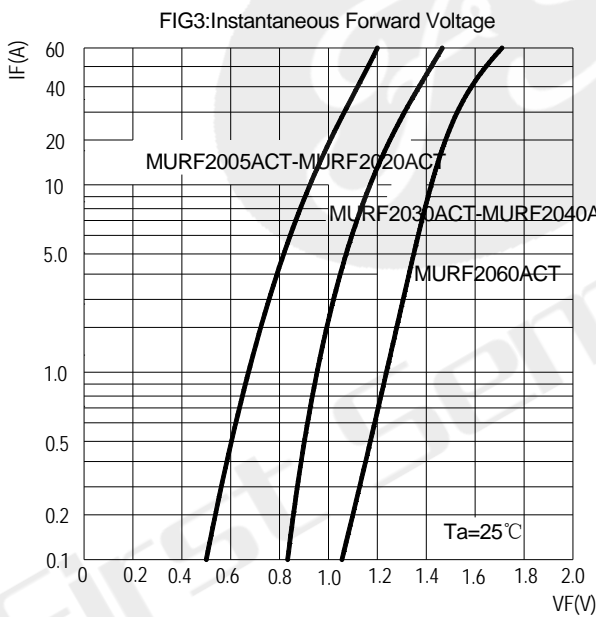
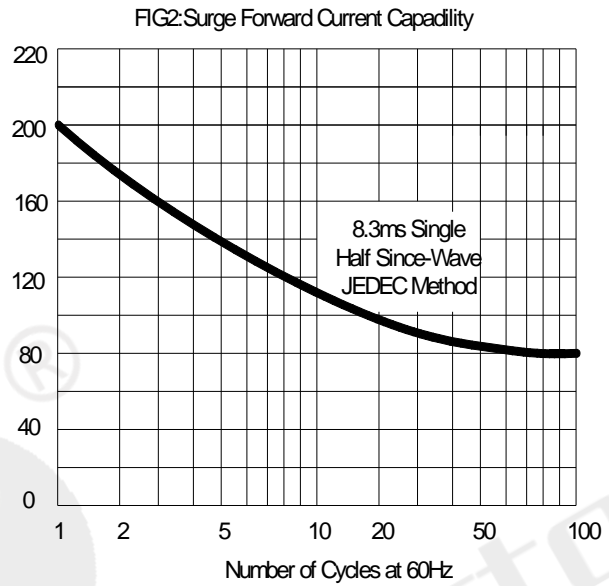
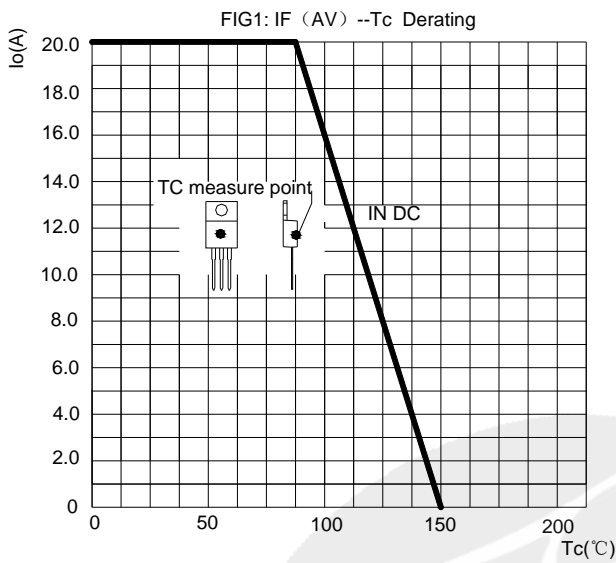
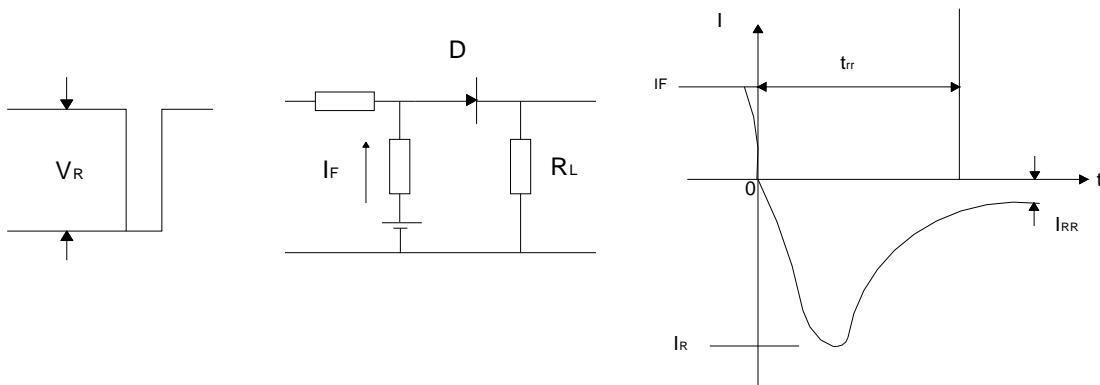


FIG.5: Diagram of circuit and Testing wave form of reverse recovery time

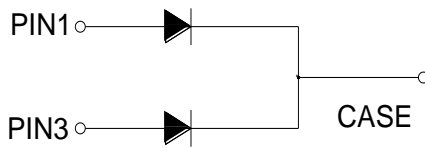
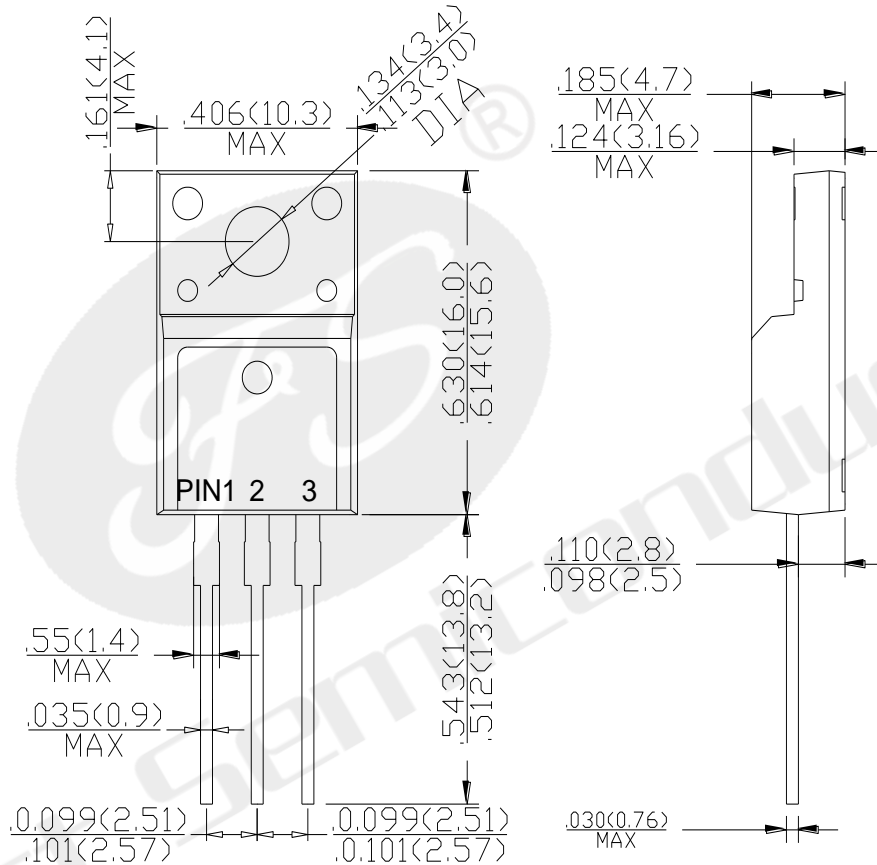




Package Dimension

TO-220F

Unit: mm





Declaration

- FIRST reserves the right to change the specifications, the same specifications of products due to different packaging line mold, the size of the appearance will be slightly different, shipped in kind, without notice! Customers should obtain the latest version information before ordering, and verify whether the relevant information is complete and up-to-date.
- Any semiconductor product under certain conditions has the possibility of failure or failure, The buyer has the responsibility to comply with safety standards and take safety measures when using FIRST products for system design and manufacturing, To avoid To avoid potential failure risks, which may cause personal injury or property damage!
- Product promotion endless, our company will wholeheartedly provide customers with better products!

ATTACHMENT

Revision History

Date	REV	Description	Page
2018.01.01	1.0	Initial release	