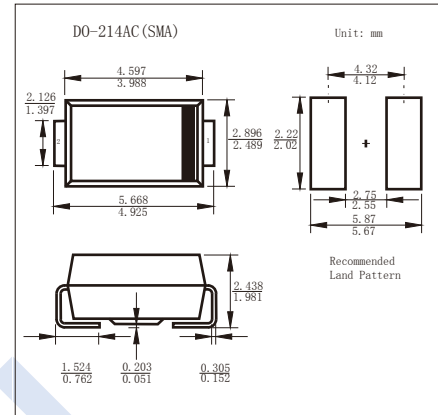


## Surface Mount Ultrafast Plastic Rectifier

### MURS140

#### ■ Features

- Ultrafast recovery time for high efficiency
- Glass passivated junction
- For surface mount applications



#### ■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

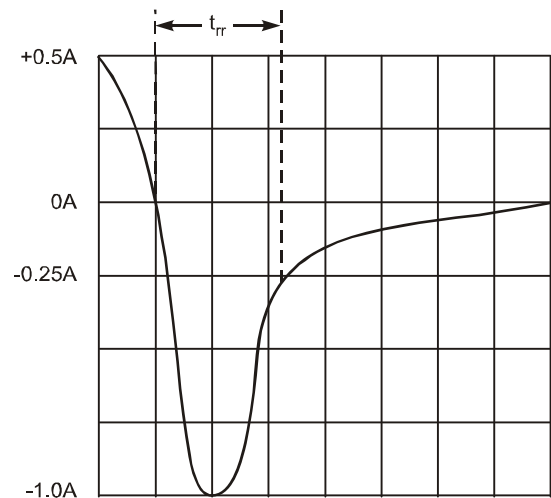
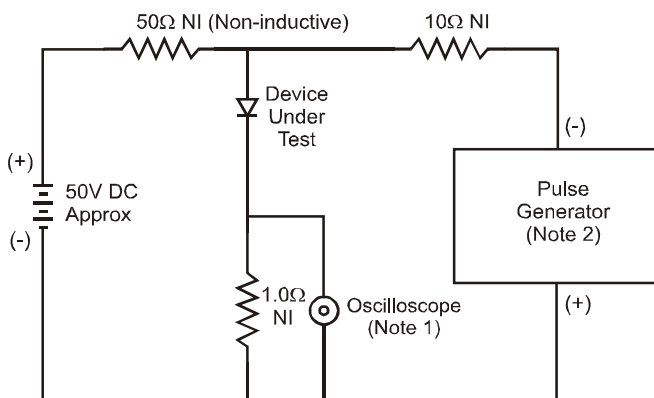
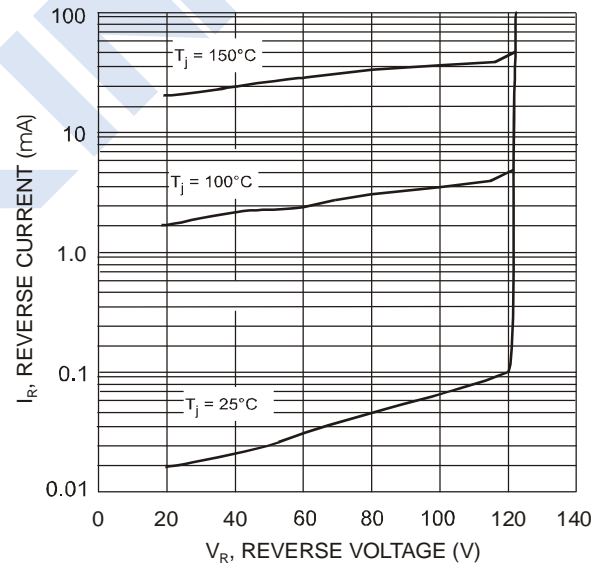
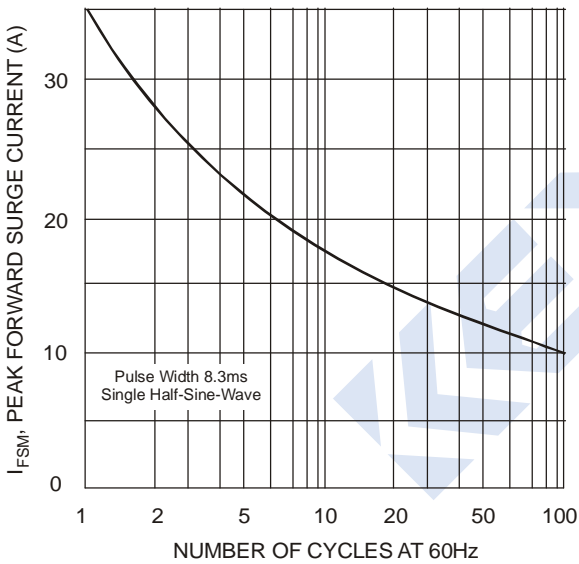
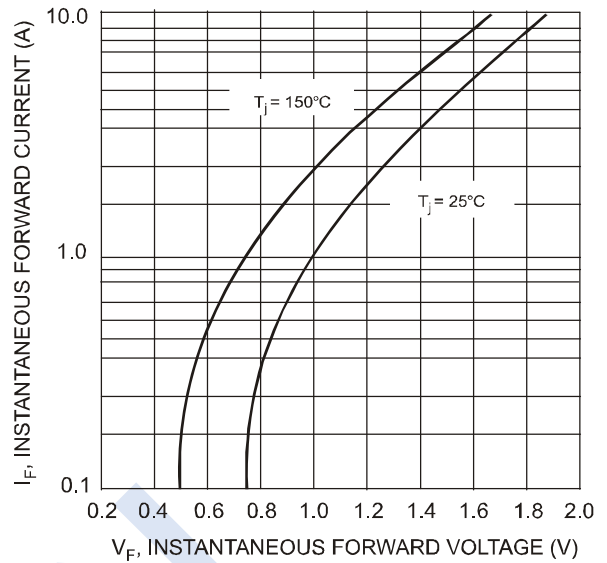
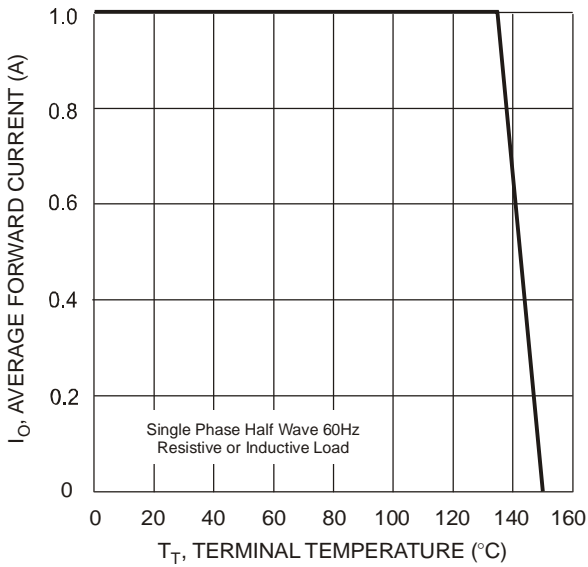
Parameter	Symbol	Rating	Unit
Reverse voltage	$V_{RM}$	400	V
Forward current	$I_F$	1.0	A
Peak forward surge current	$I_{FM}$	35	
Thermal Resistance Junction to Case	$R_{\theta JC}$	15	$^\circ\text{C}/\text{W}$
Junction Temperature	$T_J$	150	$^\circ\text{C}$
Storage temperature range	$T_{stg}$	-55 to 175	

#### ■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Reverse breakdown voltage	$V_R$	$I_R = 100 \mu\text{A}$	400			V
Forward voltage	$V_{F1}$	$I_F = 1\text{A}$			1.25	
	$V_{F2}$	$I_F = 1\text{A}$ $T_a = 150^\circ\text{C}$			1.05	
Reverse voltage leakage current	$I_{R1}$	$V_R = 400\text{V}$			5	$\mu\text{A}$
	$I_{R2}$	$V_R = 400\text{V}$ $T_a = 150^\circ\text{C}$			150	
Junction capacitance	$C_j$	$V_R = 4\text{V}$ , $f = 1\text{MHz}$			10	pF
Reverse recovery time	$t_{rr}$	$I_F = 0.5\text{A}$ , $I_R = 1\text{A}$ , $I_{rr} = 0.25\text{A}$			50	ns
Reverse recovery time	$t_{rr}$	$I_F = 1\text{A}$ , $di/dt = 100\text{A}/\mu\text{s}$ , Duty Cycle $\leq 2\%$			50	ns

MURS140

■ Typical Characteristics



Notes:

1. Rise Time = 7.0ns max. Input Impedance = 1.0MΩ, 22pF.
2. Rise Time = 10ns max. Input Impedance = 50Ω.

Set time base for 50/100 ns/cm