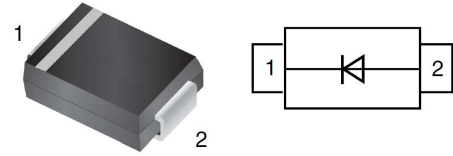


## Surface Mount Ultrafast Plastic Rectifier in DO-214AA/SMB

### Features

- Glass passivated pellet chip junction
- Ideal for automated placement
- Ultrafast reverse recovery time
- Low switching losses, high efficiency
- High forward surge capability



### Mechanical Data

- **Case:** DO-214AA(SMB) (plastic package).  
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**  
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed: 260 °C/10 sec. at terminals

### Applications

For use in high frequency rectification and freewheeling application in switching mode converters and inverters for consumer, computer, and telecommunication.

### Absolute Maximum Ratings

Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	MURS140B	MURS160B	Unit
Device marking code		<b>MURS140</b>	<b>MURS160</b>	
Maximum repetitive peak reverse voltage	$V_{RRM}$	400	600	V
Working peak reverse voltage	$V_{RWM}$	400	600	
Maximum DC blocking voltage	$V_{DC}$	400	600	
Maximum average forward rectified current at (Fig. 1)	$I_{F(AV)}$	$T_L = 150\text{ °C}$		A
		$T_L = 125\text{ °C}$		
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	$I_{FSM}$	35		
Operating junction and storage temperature range	$T_J, T_{STG}$	-65 to +175		°C

### Absolute Maximum Ratings

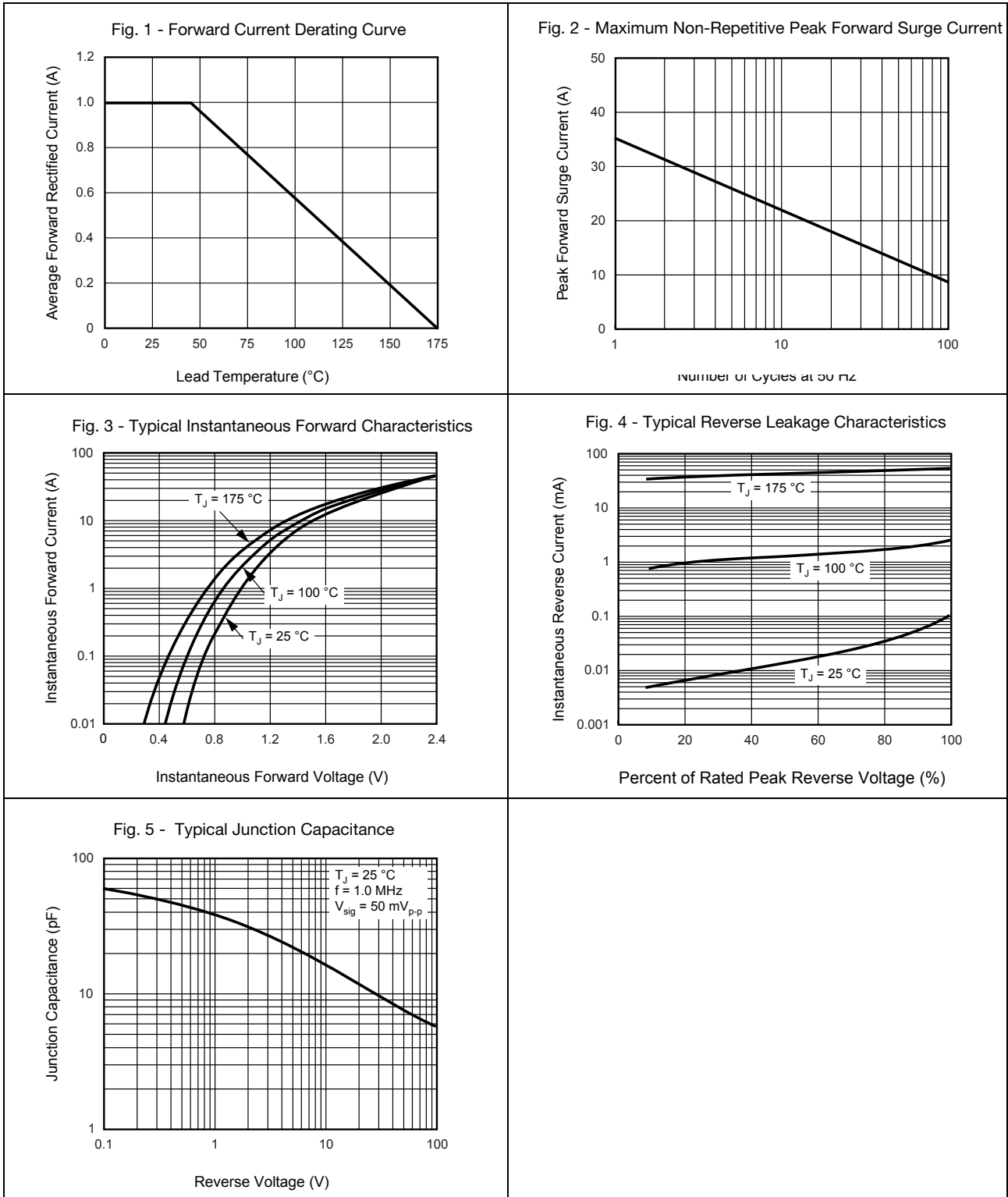
Ratings at 25 °C, ambient temperature unless otherwise specified

Parameter	Symbol	Test Conditions	MURS140B	MURS160B	Unit
Maximum instantaneous forward voltage	$V_F^{(1)}$	$I_F = 1.0\text{ A}$	$T_J = 25\text{ °C}$	1.25	V
			$T_J = 150\text{ °C}$	1.05	
Maximum instantaneous reverse current at DC blocking voltage	$I_R^{(2)}$	Rated $V_R$	$T_J = 25\text{ °C}$	5.0	$\mu\text{A}$
			$T_J = 150\text{ °C}$	150	
Maximum reverse recovery time	$t_{rr}$	$I_F = 0.5\text{ A}, I_R = 1.0\text{ A}, I_{rr} = 0.25\text{ A}$	50	ns	
		$I_F = 1.0\text{ A}, di/dt = 50\text{ A}/\mu\text{s}, V_R = 30\text{ V}, I_{rr} = 10\% I_{RM}$	75		
Maximum forward recovery time	$t_{fr}$	$I_F = 1.0\text{ A}, di/dt = 100\text{ A}/\mu\text{s}, \text{recovery to } 1.0\text{ V}$	50		

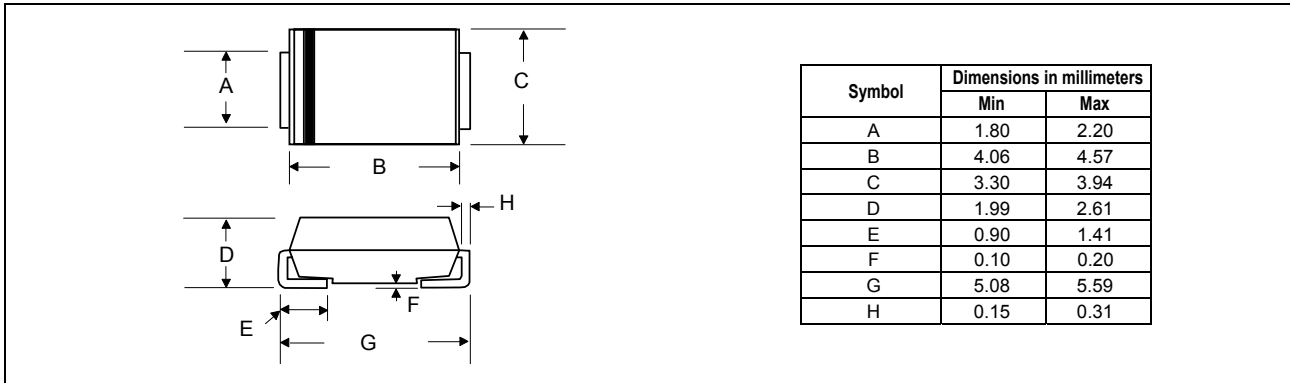
#### Notes

- (1) Pulse test: 300  $\mu\text{s}$  pulse width, 1 % duty cycle  
 (2) Pulse test: Pulse width  $\leq 40\text{ ms}$

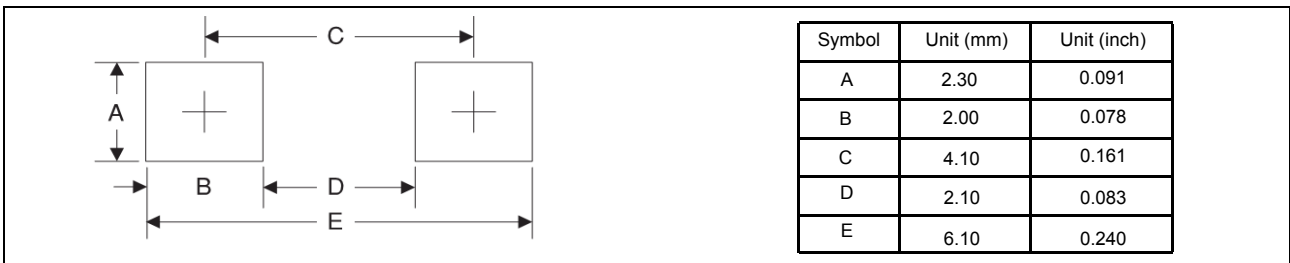
**Typical Characteristics** ( $T_{amb} = 25\text{ }^{\circ}\text{C}$  unless otherwise specified)



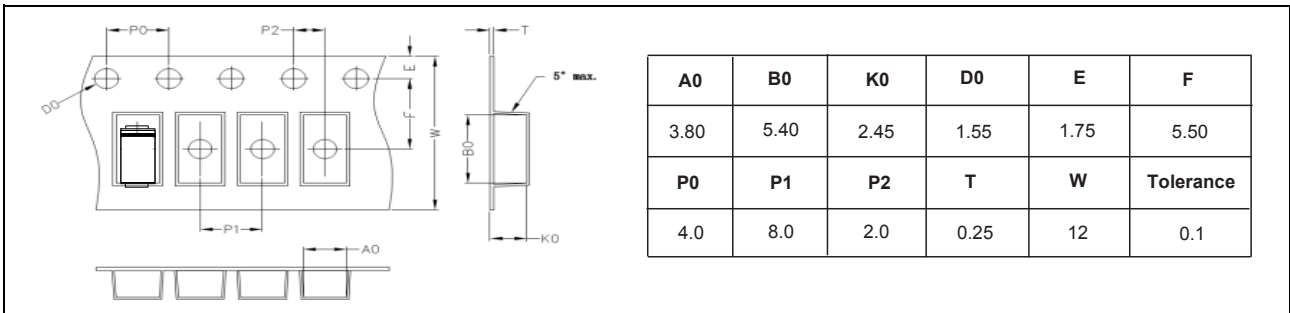
## Package Dimensions



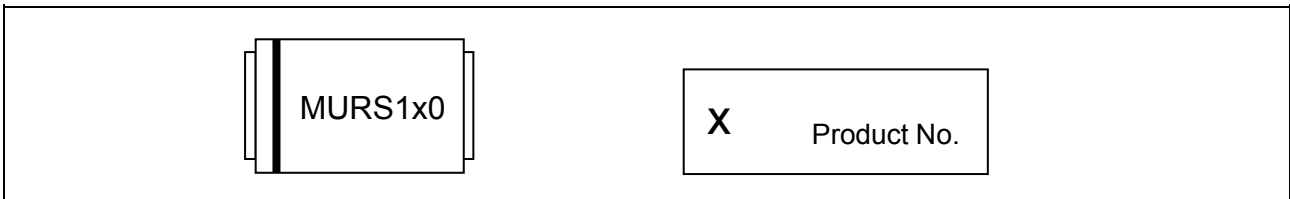
## PAD Dimensions



## Packing Information



## Marking



## Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
MURS1x0B	SMB	Tape and reel	3000pcs / reel	EIA STD RS-481

## Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release

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