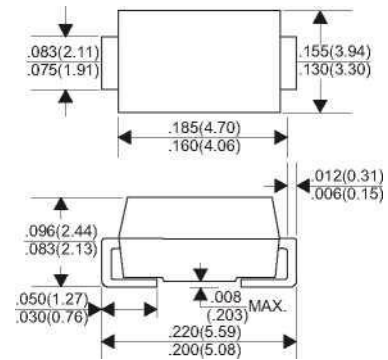


Surface Mount Ultrafast Power Rectifier

Features

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ For surface mounted applications
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ Built-in strain relief, ideal for automated placement
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:
250 °C/10 seconds at terminals

DO-214AA(SMB)

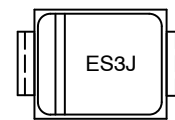


Dimensions in inches and (millimeters)

Mechanical Data

Case : JEDEC DO-214AC/SMA molded plastic body
 Terminals : Solderable per MIL-STD-750, Method 2026
 Polarity : Color band denotes cathode end Mounting
 Position : Any
 Weight : 0.003 ounce, 0.093 grams

MARKING DIAGRAMS



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	600	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
Average Rectified Forward Current	$I_{F(AV)}$	3.0 @ $T_L = 105^\circ\text{C}$	A
Non-Repetitive Peak Surge Current (Surge applied at rated load conditions halfwave, single phase, 60 Hz)	I_{FSM}	100	A
Operating Junction Temperature	T_J	-65 to +175	$^\circ\text{C}$

ORDERING INFORMATION

Device	Package	Shipping
MURS360BT3G	SMB (Pb-Free)	3000 / Tape & Reel
NRVUS360VBT3G	SMB (Pb-Free)	3000 / Tape & Reel
NRVUS360VDBT3G	SMB (Pb-Free)	3000 / Tape & Reel
SURS8360BT3G	SMB (Pb-Free)	3000 / Tape & Reel

THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Thermal Resistance, Junction-to-Lead	$R_{\theta JL}$	14	$^{\circ}C/W$
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	125	$^{\circ}C/W$

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Typ	Max	Unit
Maximum Instantaneous Forward Voltage ($i_F = 3.0\text{ A}$, $T_J = 25^{\circ}C$) ($i_F = 3.0\text{ A}$, $T_J = 150^{\circ}C$)	V_F	- 0.83	1.25 1.05	V
Maximum Instantaneous Reverse Current (Rated DC Voltage, $T_J = 25^{\circ}C$) (Rated DC Voltage, $T_J = 150^{\circ}C$)	i_R	- 95	3.0 150	μA
Maximum Reverse Recovery Time ($i_F = 1.0\text{ A}$, $di/dt = 50\text{ A}/\mu s$) ($i_F = 0.5\text{ A}$, $i_R = 1.0\text{ A}$, I_R to 0.25 A)	t_{rr}	- -	75 50	ns
Maximum Forward Recovery Time ($i_F = 1.0\text{ A}$, $di/dt = 100\text{ A}/\mu s$, Rec. to 1.0 V)	t_{fr}	-	50	ns

TYPICAL CHARACTERISTICS

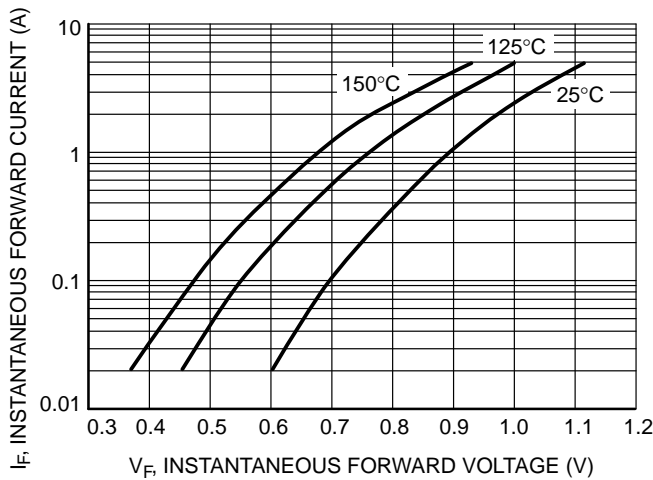


Figure 1. Typical Forward Voltage

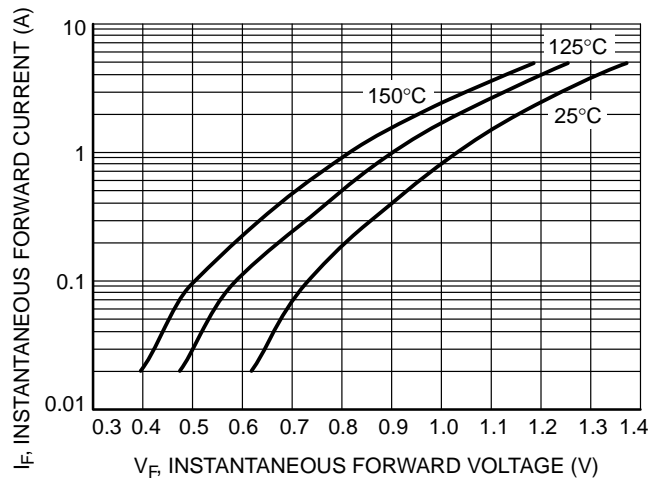


Figure 2. Maximum Forward Voltage

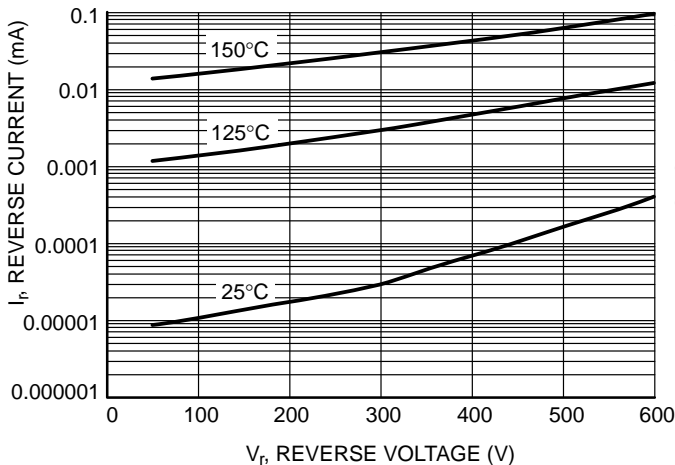


Figure 3. Typical Reverse Current

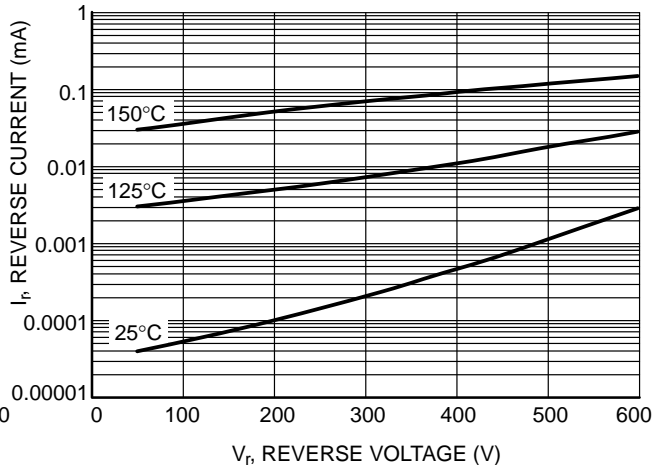


Figure 4. Maximum Reverse Current

TYPICAL CHARACTERISTICS

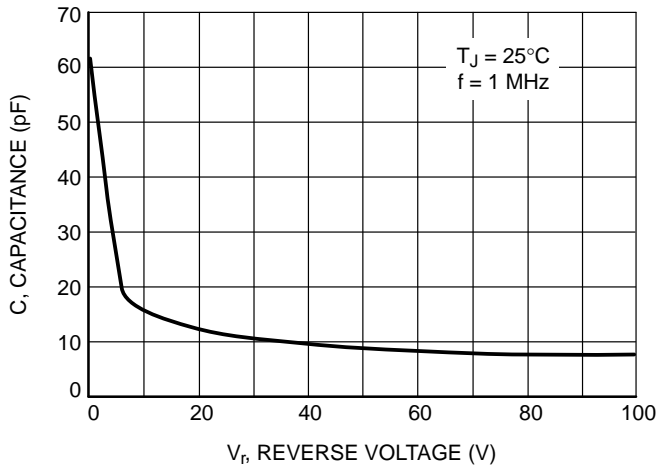


Figure 5. Typical Capacitance

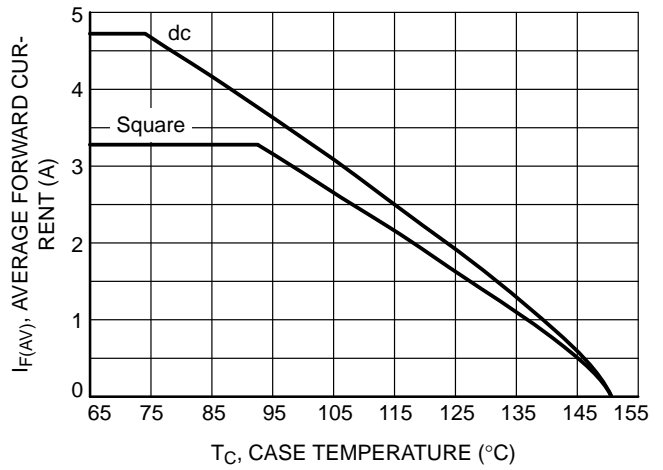


Figure 6. Current Derating, Lead

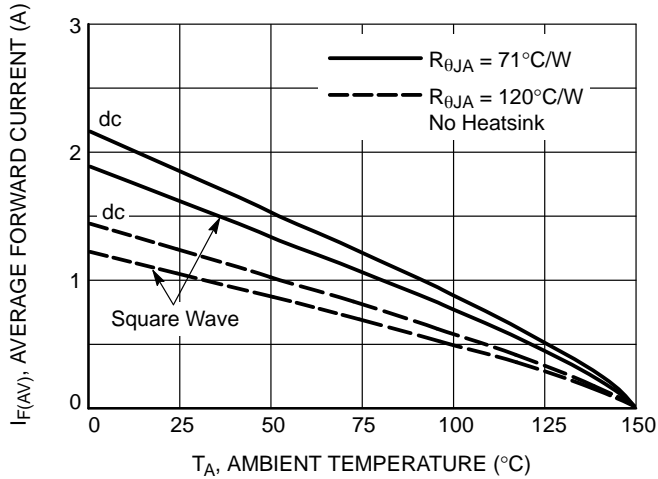


Figure 7. Current Derating, Ambient

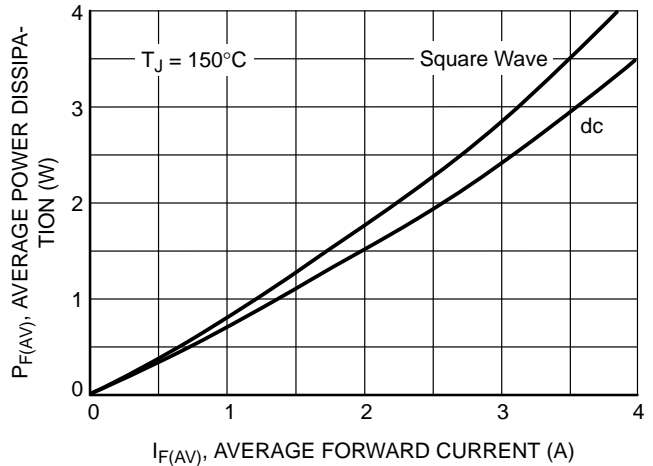


Figure 8. Typical Forward Power Dissipation

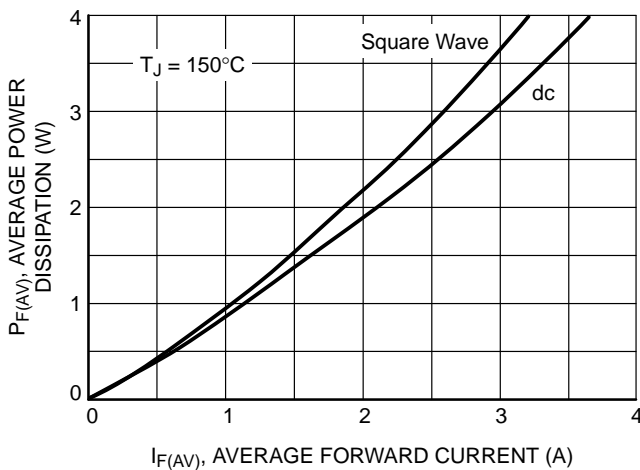


Figure 9. Maximum Forward Power Dissipation

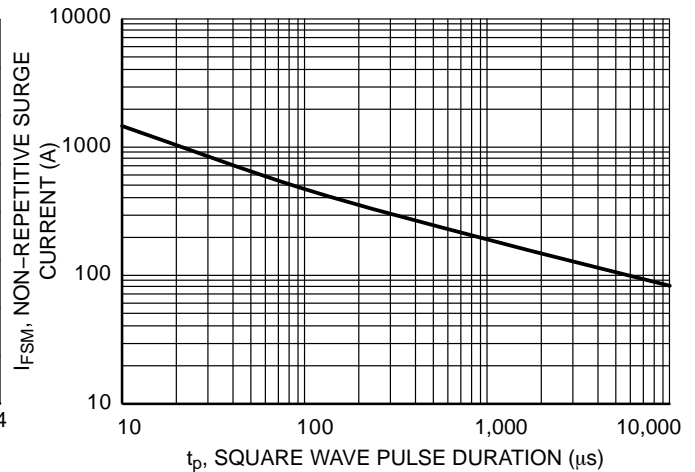


Figure 10. Typical Non-Repetitive Surge Current

*Typical performance based on a limited sample size. ON Semiconductor does not guarantee ratings not listed in the Maximum Ratings table.

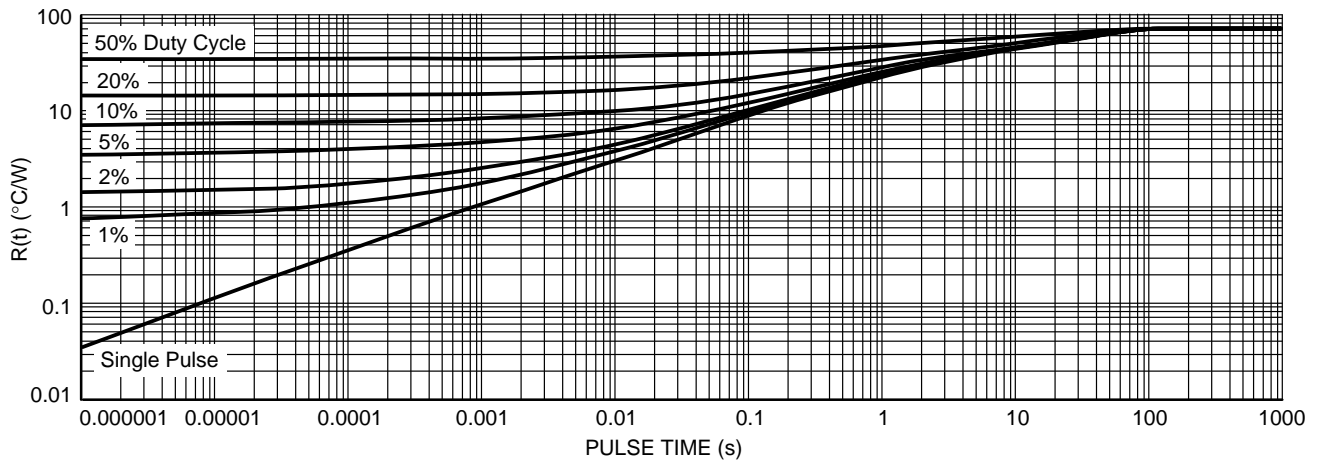


Figure 11. Thermal Response, Junction-to-Ambient