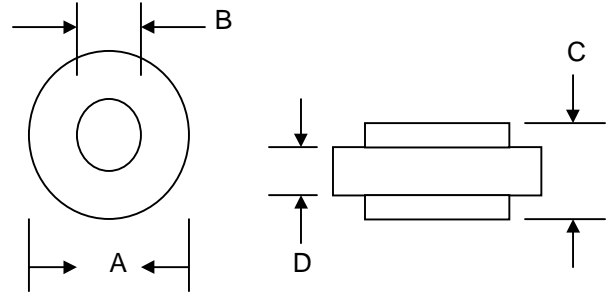


# AR/S25A – AR/S25M

## 25A AUTOMOTIVE BUTTON DIODE

### Features

- Diffused Junction
- Low Leakage
- Low Cost
- High Surge Current Capability
- Low Cost Construction Utilizing Void-Free Molded Plastic Technique



### Mechanical Data

- Case: Molded Plastic
- Terminals: Plated Terminals Solderable per MIL-STD-202, Method 208
- Polarity: Color Ring Denotes Cathode End
- Weight: 1.8 grams (approx.)
- Mounting Position: Any
- Marking: Color Band

Dim	AR		ARS	
	Min	Max	Min	Max
A	9.70	10.40	8.30	8.90
B	5.50	5.70	5.50	5.70
C	6.0	6.40	6.0	6.40
D	4.2	4.7	4.2	4.7

All Dimensions in mm

S Suffix Designates ARS Package  
 No Suffix Designates AR Package

### Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%.

Characteristic	Symbol	AR/S 25A	AR/S 25B	AR/S 25D	AR/S 25G	AR/S 25J	AR/S 25K	AR/S 25M	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Working Peak Reverse Voltage	$V_{RWM}$								
DC Blocking Voltage	$V_R$								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current @ $T_C = 150^\circ\text{C}$	$I_O$	25							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) at $T_J = 150^\circ\text{C}$	$I_{FSM}$	400							A
Forward Voltage @ $I_F = 25\text{A}$	$V_{FM}$	1.0							V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_{RM}$	5.0 250							$\mu\text{A}$
Reverse Recovery Time (Note 1)	$t_{rr}$	3.0							$\mu\text{S}$
Typical Junction Capacitance (Note 2)	$C_j$	300							pF
Typical Thermal Resistance Junction to Case (Note 3)	$R_{\theta JC}$	1.0							K/W
Operating and Storage Temperature Range	$T_J, T_{STG}$	-50 to +175							$^\circ\text{C}$
Polarity and Voltage Denotation Color Band		Red	Yellow	Silver	Orange	Green	Blue	Violet	

**\*Glass passivated forms are available upon request**

- Note: 1. Measured with  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $IRR = 0.25\text{A}$   
 2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.  
 3. Thermal Resistance: Junction to case, single side cooled.

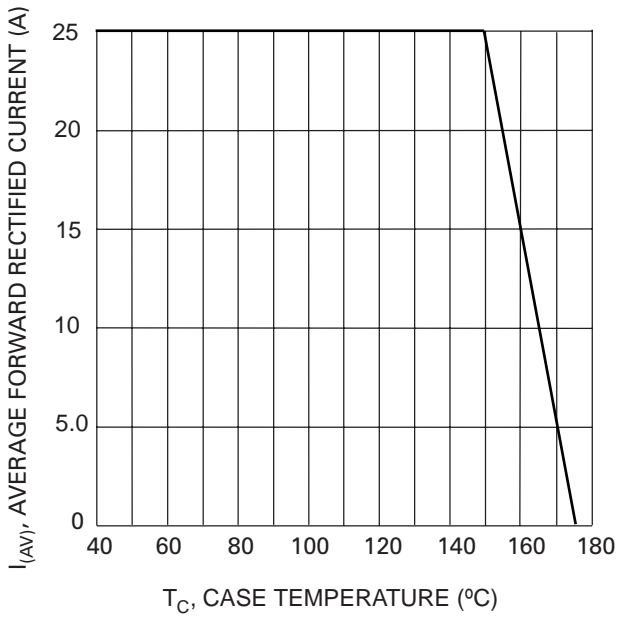


Fig. 1 Forward Current Derating Curve

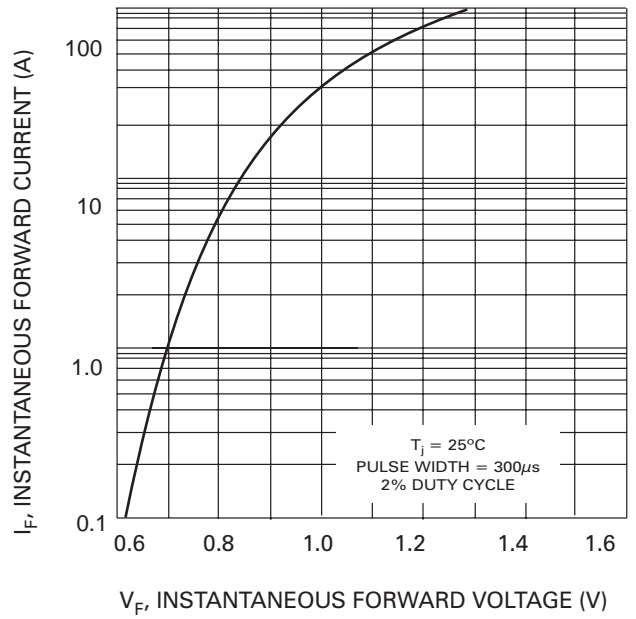


Fig. 2 Typical Forward Characteristics

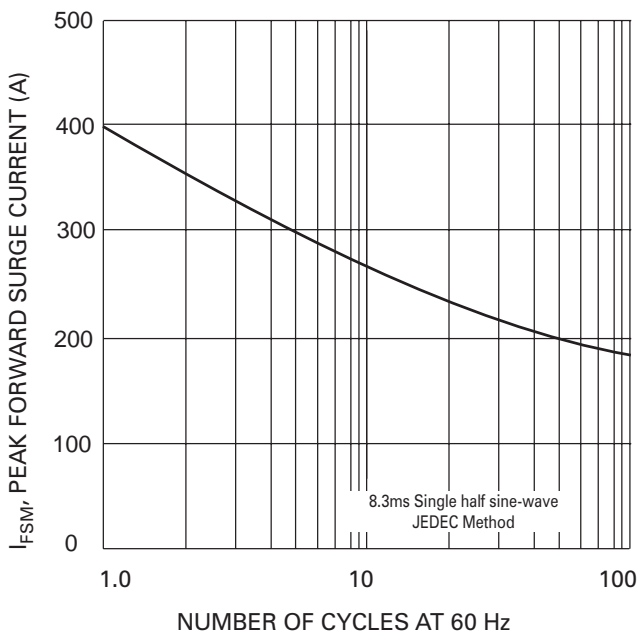


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

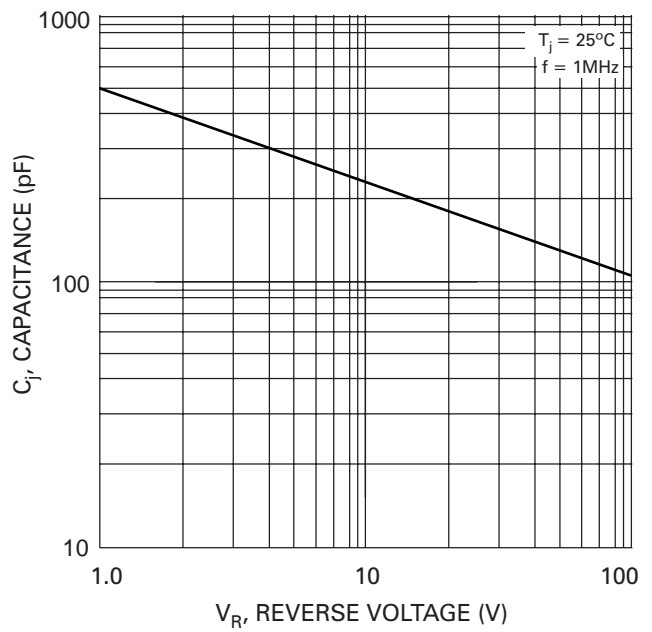


Fig. 4 Typical Junction Capacitance

## ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
AR25A	10mm Button	1000 Units/Box
ARS25A	8.6mm Button	1000 Units/Box
AR25B	10mm Button	1000 Units/Box
ARS25B	8.6mm Button	1000 Units/Box
AR25D	10mm Button	1000 Units/Box
ARS25D	8.6mm Button	1000 Units/Box
AR25G	10mm Button	1000 Units/Box
ARS25G	8.6mm Button	1000 Units/Box
AR25J	10mm Button	1000 Units/Box
ARS25J	8.6mm Button	1000 Units/Box
AR25K	10mm Button	1000 Units/Box
ARS25K	8.6mm Button	1000 Units/Box
AR25M	10mm Button	1000 Units/Box
ARS25M	8.6mm Button	1000 Units/Box

Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.

Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

**WARNING:** DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

**Won-Top Electronics Co., Ltd.**

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

**Phone:** 886-7-822-5408 or 886-7-822-5410

**Fax:** 886-7-822-5417

**Email:** sales@wontop.com

**Internet:** <http://www.wontop.com>

*We power your everyday.*