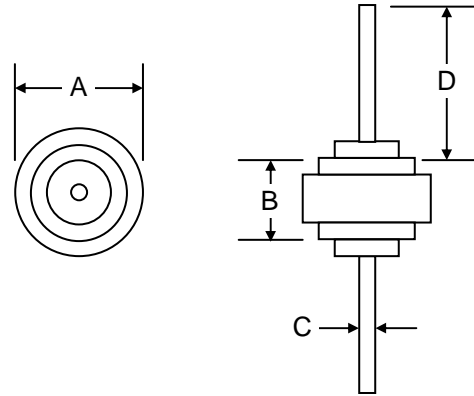


Features

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

Mechanical Data

- Case: ARL or ARSL, Molded Plastic
- Terminals: Plated Terminals Solderable per MIL-STD-202, Method 208
- Polarity: Color Ring Denotes Cathode End
- Weight: 2.0 grams (approx.)
- Mounting Position: Any
- Marking: Type Number
- **Lead Free: For RoHS / Lead Free Version, Add “-LF” Suffix to Part Number, See Page 3**



Dim	ARL		ARSL	
	Min	Max	Min	Max
A	9.70	10.40	8.30	8.90
B	5.50	6.30	5.50	6.30
C	1.27	1.35	1.27	1.35
D	25.00	—	25.00	—

All Dimensions in mm

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 50AL	AR/S 50BL	AR/S 50DL	AR/S 50GL	AR/S 50JL	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	50	100	200	400	600	V
Working Peak Reverse Voltage	V_{RWM}						
DC Blocking Voltage	V_R						
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	V
Average Rectified Output Current @ $T_C = 60^\circ\text{C}$	I_O	50					A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	500					A
Forward Voltage @ $I_F = 50\text{A}$	V_{FM}	1.1					V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}	5.0 100					μA
Typical Junction Capacitance (Note 2)	C_J	400					pF
Typical Thermal Resistance (Note 3)	R_{JC}	1.0					$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150					$^\circ\text{C}$

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

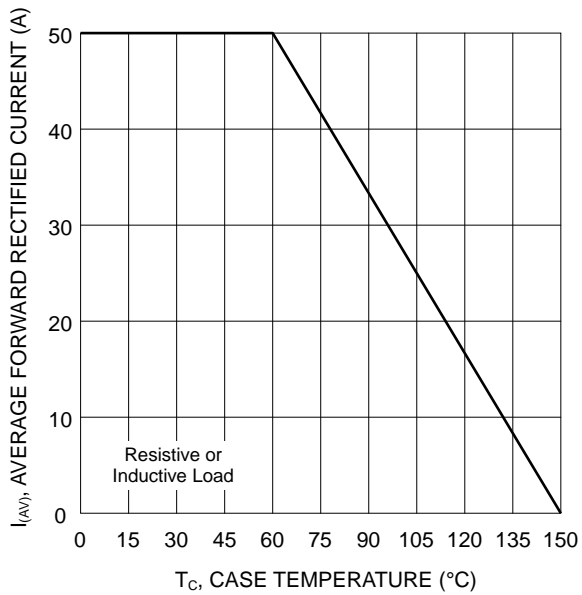


Fig. 1 Forward Current Derating Curve

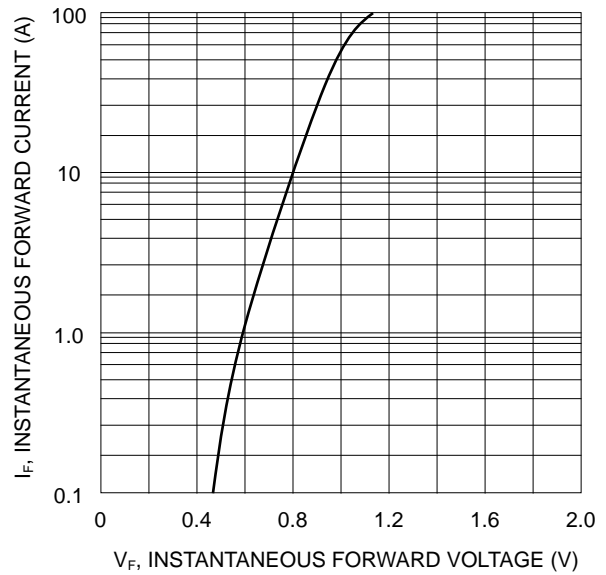


Fig. 2 Typical Forward Characteristics

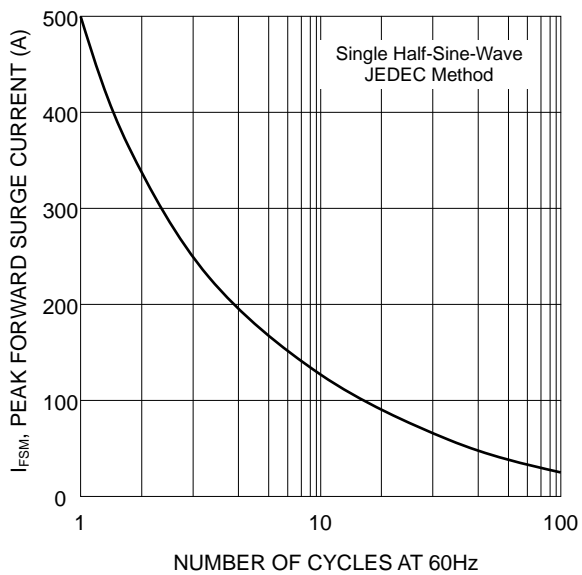


Fig. 3 Forward Surge Current Derating Curve

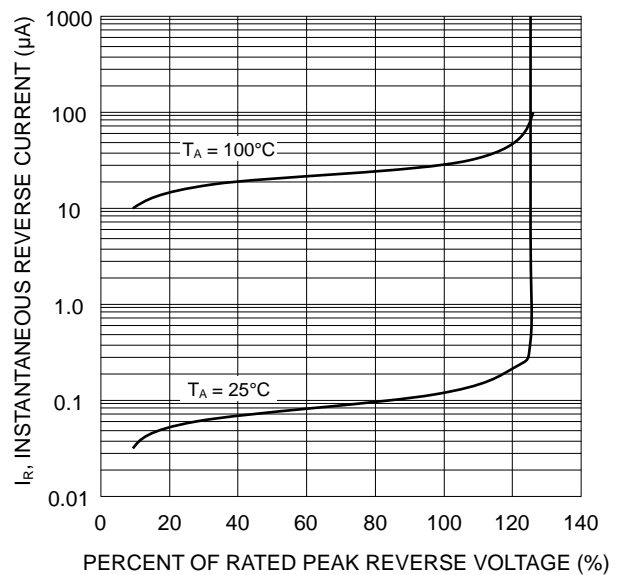



Fig. 4 Typical Reverse Characteristics

ORDERING INFORMATION

Product No.	Package Type	Shipping Quantity
AR50AL	10mm Leaded Button	200 Units/Box
ARS50AL	8.6mm Leaded Button	200 Units/Box
AR50BL	10mm Leaded Button	200 Units/Box
ARS50BL	8.6mm Leaded Button	200 Units/Box
AR50DL	10mm Leaded Button	200 Units/Box
ARS50DL	8.6mm Leaded Button	200 Units/Box
AR50GL	10mm Leaded Button	200 Units/Box
ARS50GL	8.6mm Leaded Button	200 Units/Box
AR50JL	10mm Leaded Button	200 Units/Box
ARS50JL	8.6mm Leaded Button	200 Units/Box

1. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
2. **To order Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, AR50AL-LF.**

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Won-Top Electronics Co., Ltd.
No. 44 Yu Kang North 3rd Road,
Chine Chen Dist., Kaohsiung 806, 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>

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