



## DESCRIPTION

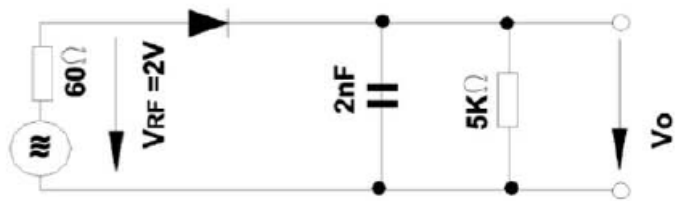
The L4148 is available in LL-34 Package

## FEATURES

- For automatic surface mounting
- Available in LL-34 Package

## ORDERING INFORMATION

Package Type	Part Number
LL-34	L4148
Note	SPQ: 2,500pcs/Reel
AiT provides all RoHS Compliant Products	



Rectification Efficiency Measurement Circuit



## ABSOLUTE MAXIMUM RATINGS

T<sub>A</sub> = 25°C

V <sub>RM</sub> , Peak Reverse Voltage	100V
V <sub>R</sub> , Reverse Voltage	75V
I <sub>F(AV)</sub> , Average Rectified Forward Current	200mA
I <sub>FSM</sub> , Non-Repetitive Peak Forward Surge Current	at t=1s 0.5A at t=1ms 1.0A at t=1μs 4.0A
P <sub>TOT</sub> , Power Dissipation	500mW
T <sub>J</sub> , Junction Temperature	175°C
T <sub>STG</sub> , Storage Temperature Range	-65°C ~ +175°C
Valid Provided that Electrodes are kept at ambient temperature	

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

## ELECTRICAL CHARACTERISTICS

T<sub>A</sub> = 25 °C

Parameter	Symbol	Conditions	Min.	Max.	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =10mA	-	1	V
Leakage Current	I <sub>R</sub>	V <sub>R</sub> =20V	-	25	nA
		V <sub>R</sub> =75V		5	μA
		V <sub>R</sub> =20V, T <sub>J</sub> =150°C		50	μA
Reverse Breakdown Voltage tested with 100uA Pulses	V <sub>(BR)R</sub>		100	-	V
Capacitance	C <sub>TOT</sub>	V <sub>R</sub> =0V, f=1MHZ	-	4	pF
Voltage Rise when Switching on tested with 50mA Forward Pulses	V <sub>FR</sub>	t <sub>p</sub> = 0.1s, Rise Time<30ns, f <sub>p</sub> =5 to 100KHz	-	2.5	V
Reverse Recovery Time	t <sub>rr</sub>	I <sub>F</sub> = 10mA to I <sub>R</sub> =1mA V <sub>R</sub> =6V, R <sub>L</sub> =100Ω	-	4	nS
Thermal Resistance Junction to Ambient Air	R <sub>thA</sub>			0.35 NOTE1	K/mW
Rectification Efficiency	η <sub>V</sub>	F=100MHZ, V <sub>RF</sub> =2V	0.45	-	-

NOTE1: Valid provided that Electrodes are kept at ambient temperature



### TYPICAL CHARACTERISTICS

Figure 1. Forward characteristics

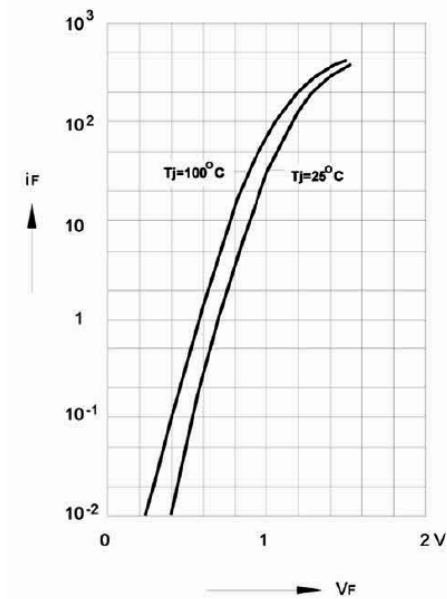


Figure 2. Dynamic forward resistance vs. forward current

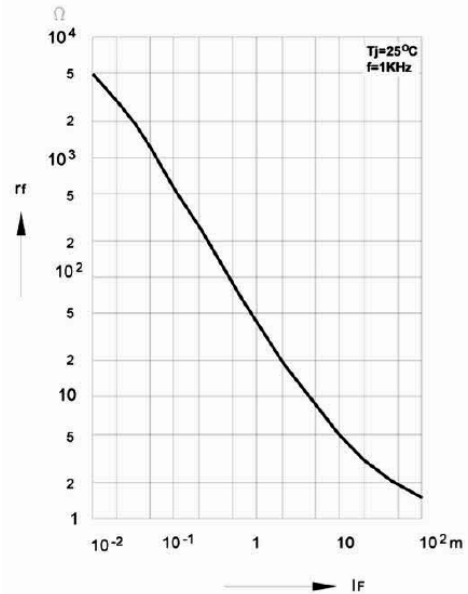


Figure 3. Admissible power dissipation vs. ambient temperature  
Valid provided that electrodes are kept at ambient temperature

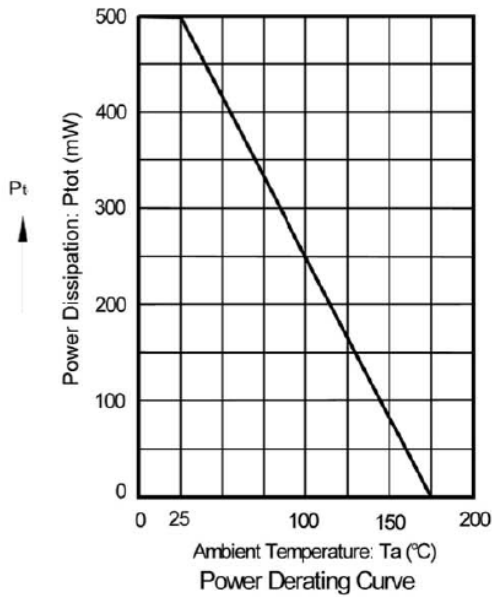


Figure 4. Relative capacitance vs. reverse voltage

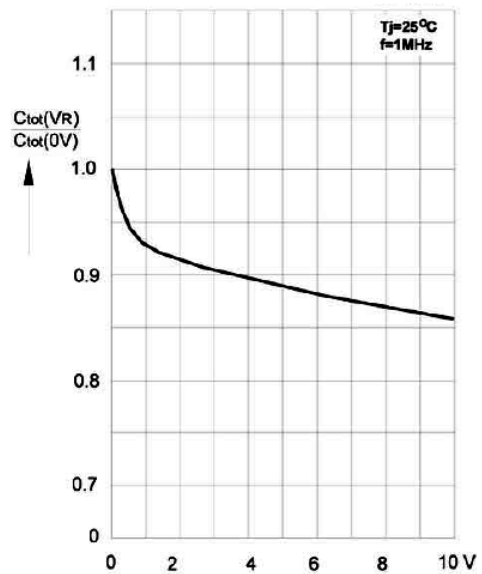




Figure 5. Leakage current vs. junction temperature

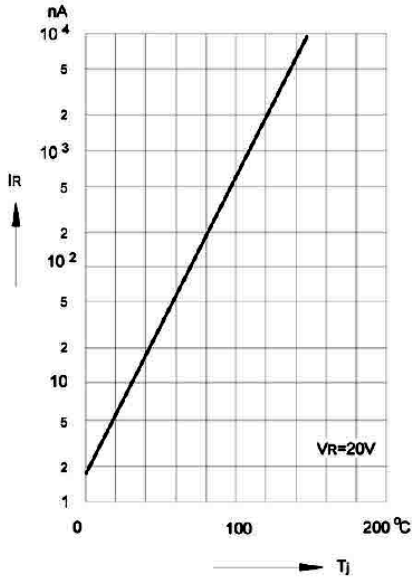
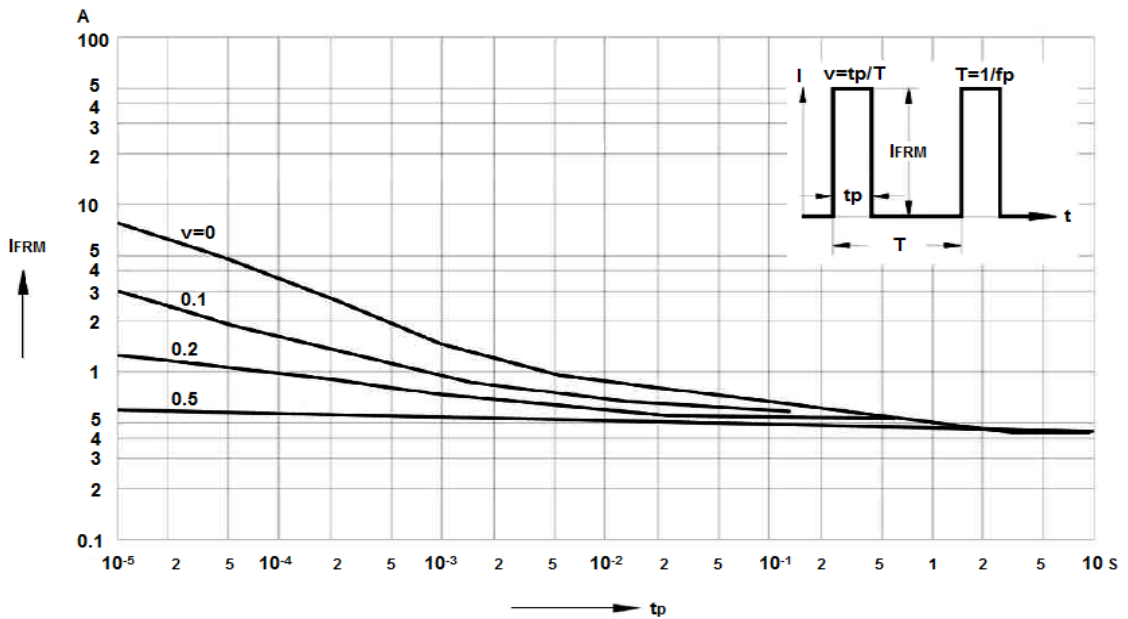


Figure 6. Admissible repetitive peak forward current vs. pulse duration  
Valid provided that electrodes are kept at ambient temperature

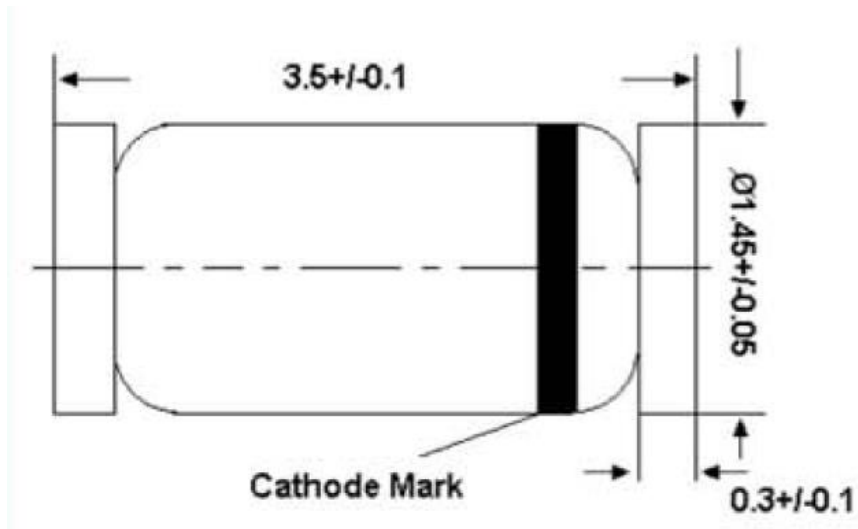




## PACKAGE INFORMATION

Dimension in LL-34 Package (Unit: mm)

Glass Case MiniMELF





## IMPORTANT NOTICE

AiT Semiconductor Inc. (AiT) reserves the right to make changes to any its product, specifications, to discontinue any integrated circuit product or service without notice, and advises its customers to obtain the latest version of relevant information to verify, before placing orders, that the information being relied on is current.

AiT Semiconductor Inc.'s integrated circuit products are not designed, intended, authorized, or warranted to be suitable for use in life support applications, devices or systems or other critical applications. Use of AiT products in such applications is understood to be fully at the risk of the customer. As used herein may involve potential risks of death, personal injury, or server property, or environmental damage. In order to minimize risks associated with the customer's applications, the customer should provide adequate design and operating safeguards.

AiT Semiconductor Inc. assumes to no liability to customer product design or application support. AiT warrants the performance of its products of the specifications applicable at the time of sale.