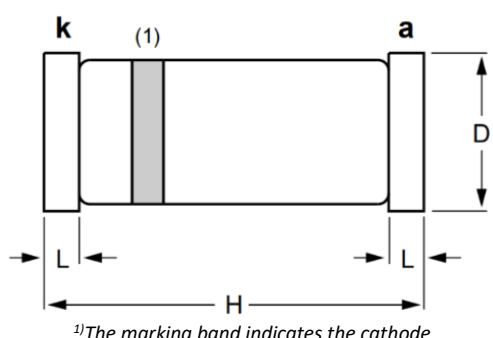


Fast Switching SMD Diodes

Primary characteristics		
Parameter	Value	Unit
V_Z range nom.	0.75 to 75	V
Power rating	500	mW

Features

- Common cylindrical glass **MiniMELF (SOD-80C, DO-213AA, LL-34)** case for easy automatic insertion.
- Pb-Free and **RoHS** Compliant
- Fast Switching Speed
- General Purpose Rectification
- Silicon Epitaxial Planar Construction
- Weight: 0.12 grams (approx.)

Case dimensions			
 ¹⁾The marking band indicates the cathode			
LL-34 (MiniMELF)			
Unit	D	H	L
mm	1.45 ± 0.05	3.45 ± 0.15	0.29 ± 0.04

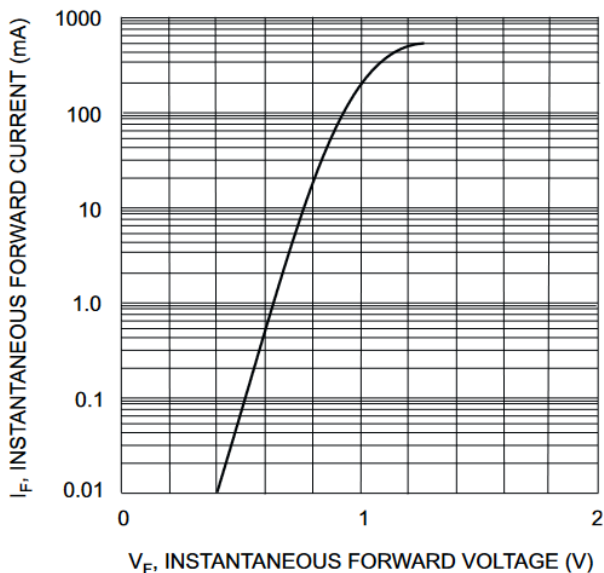
Absolute maximum ratings and electrical characteristics (T _a = 25°C)						
Parameter	Symbol	Test condition	Value			Unit
			Min.	Typ.	Max.	
Non-repetitive peak reverse voltage	V_{RM}	-	-	-	100	V
Peak repetitive reverse voltage	V_{RRM}	-	-	-	75	V
Working peak reverse voltage	V_{RWM}	-	-	-	75	V
DC blocking voltage	V_R	-	-	-	75	V
RMS reverse voltage	$V_{R(RMS)}$	-	-	53	-	V
Forward continuous current ¹⁾	L4148	-	-	300	-	mA
	L4448	-	-	500	-	mA
Average rectified output current ¹⁾	I_O	-	-	150	-	mA
Non-repetitive peak forward surge current	@t=1.0s	-	-	-	1.0	A
	@t=1.0μs	-	-	-	2.0	A
Power dissipation	P_d	-	-	-	500	mW
Power derating above 25°C		-	-	1.68	-	mW/°C

Absolute maximum ratings and electrical characteristics ($T_a = 25^\circ\text{C}$)

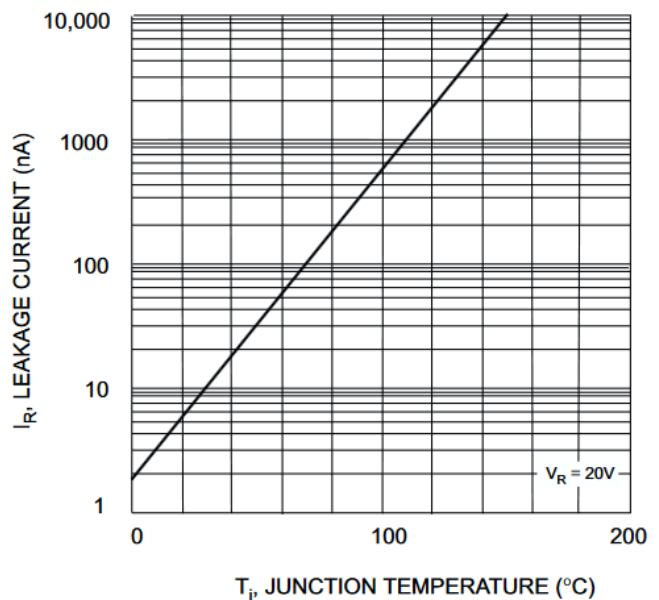
Parameter	Symbol	Test condition	Value			Unit
			Min.	Typ.	Max.	
Thermal resistance, junction to ambient air ¹⁾	$R_{\theta JA}$	-	-	300	-	K/W
Operating and storage temperature range	T_j, T_{STG}	-	-65	-	175	$^\circ\text{C}$
Maximum forward voltage	LL4148	$I_F=10\text{mA}$	-	-	1.0	V
	LL4448	$I_F=5.0\text{mA}$	0.62	-	0.72	
	LL4448	$I_F=100\text{mA}$	-	-	1.0	
Maximum peak reverse current	I_{RM}	$V_R=75\text{V}$	-	-	5.0	μA
		$V_R=70\text{V}, T_j=150^\circ\text{C}$	-	-	50	μA
		$V_R=20\text{V}, T_j=150^\circ\text{C}$	-	-	30	μA
		$V_R=20\text{V}$	-	-	25	nA
Capacitance	C_j	$V_R=0, f=1.0\text{MHz}$	-	-	4.0	pF
Reverse Recovery Time	t_{rr}	$I_F=10\text{mA}$ to $I_R=1.0\text{mA}$ $V_R=6.0\text{V}, R_L=100\Omega$	-	-	4.0	ns

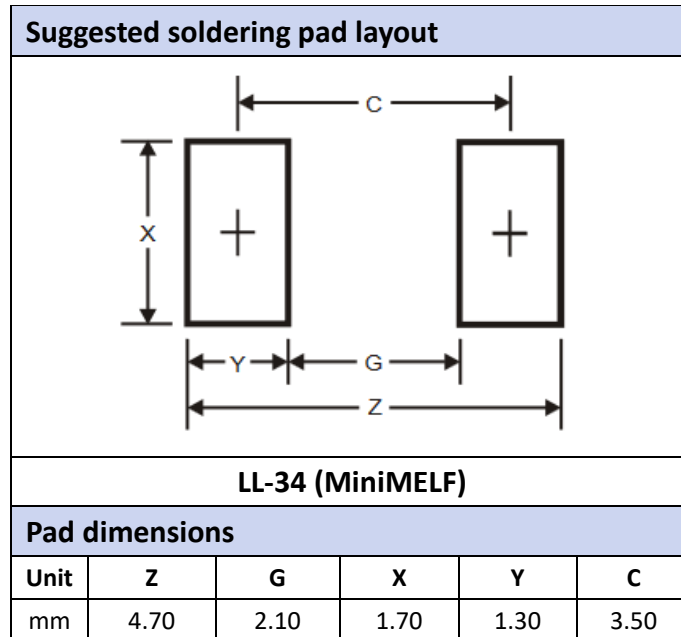
¹⁾ Valid provided that electrodes are kept at ambient temperature

Instantaneous forward voltage



Junction temperature





Ordering information			
Part Number	Package	Shipping Quantity	Dimensions
LL4148, LL4448	MiniMELF (SOD-80C, DO-213AA, LL-34)	2500 pcs / reel	---

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