

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE RANGE: 60 - 40 V

POWER DISSIPATION: 400 mW

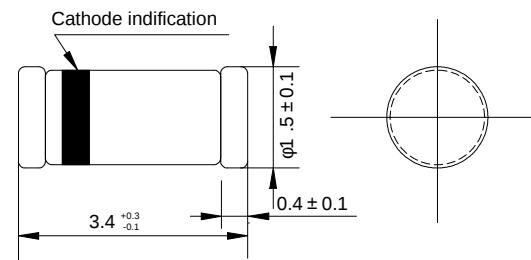
FEATURES

For general purpose applications
The low forward voltage drop and fast switching marking it ideal for protection of MOS devices, steering, biasing and coupling diodes for fast switching and low logic level applications.
Integrated protection ring against static discharge
Low leakage current

MECHANICAL DATA

Case: MINI-MELF
Polarity: Color band denotes cathode
Weight: Approx 0.031 grams

MINI-MELF



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

ABSOLUTE MAXIMUM RATINGS AND THERMAL RESISTANCE

		LL101A	LL101B	LL101C	Unit
Reverse voltage	V_R	60	50	40	V
Repetitive peak reverse voltage	V_{RRM}	60	50	40	V
Forward current	$I_{(AV)}$	30			m A
Maximum single cycle surge 10 μ s square wave	I_{FSM}	2.0			A
Power dissipation	P_{tot}	400			mW
Thermal resistance junction to ambient	$R_{\theta JA}$	320 ¹⁾			K/W
Junction temperature	T_j	125			
Storage temperature range	T_{STG}	- 55 --- + 150			

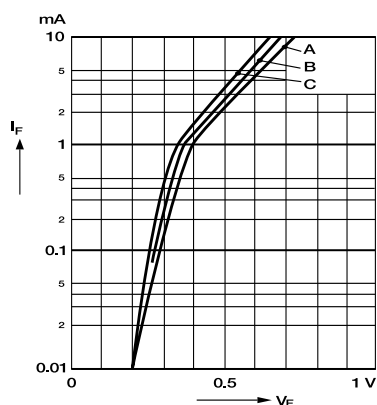
¹⁾ Device mounted on PC board 50mm×50mm×1.6mm .

ELECTRICAL CHARACTERISTICS

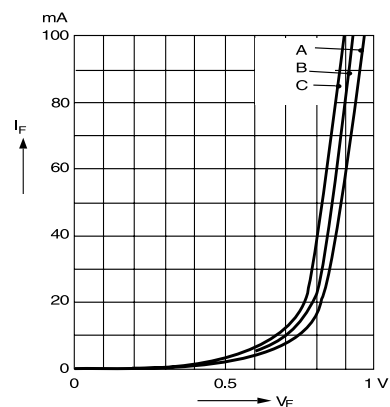
Parameter	Test Conditions		Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=1\text{mA}$	LL101A	V_F	-	-	0.41	V
	$I_F=1\text{mA}$	LL101B		-	-	0.40	
	$I_F=1\text{mA}$	LL101C		-	-	0.39	
	$I_F=15\text{mA}$	LL101A		-	-	1.00	
	$I_F=15\text{mA}$	LL101B		-	-	0.95	
	$I_F=15\text{mA}$	LL101C		-	-	0.90	
Reverse current	$V_R=50\text{V}$	LL101A	I_R	-	-	200	n A
	$V_R=40\text{V}$	LL101B		-	-	200	
	$V_R=30\text{V}$	LL101C		-	-	200	
Breakdown voltage	$I_R=10\mu\text{A}$	LL101A	$V_{(BR)}$	60	-	-	V
		LL101B		50	-	-	
		LL101C		40	-	-	
Diode capacitance	$V_R=0, f=1\text{MHz}$	LL101A	C_D	-	-	2.0	pF
		LL101B		-	-	2.1	
		LL101C		-	-	2.2	
Reverse recovery time	$I_F=I_R=5\text{mA}, \text{recover to } 0.1i_R$		t_{rr}	-	-	1.0	ns

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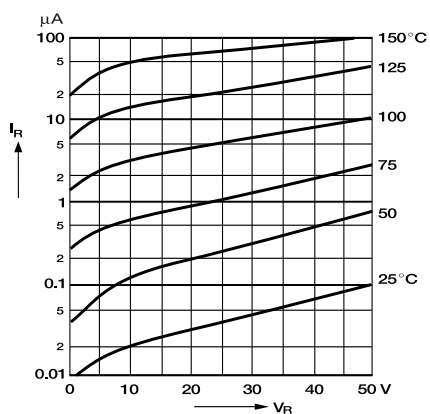
**FIG.1 – TYP. I_F VS V_F FOR PRIMARY CONDUCTION
THROUGH THE SCHOTTKY BARRIERS**



**FIG.2 – TYP. I_F OF COMBINATION SCHOTTKY
BARRIER AND PN JUNCTION GUARD RING**



**FIG.3 – TYPICAL VARIATION OF REVERSE
CURRENT AT VARIOUS TEMPERATURES**



**FIG.4 – TYPICAL CAPACITANCE CURVE
AS A FUNCTION OF REVERSE VOLTAGE**

