



Schottky Barrier Diode

Features

1. Small surface mounting type
2. High reliability
3. Low reverse current and low forward voltage



Applications

Low current rectification and high speed switching

Construction

Silicon epitaxial planar

Absolute Maximum Ratings

$T_j=25^{\circ}\text{C}$

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage		LL103A	V_{RRM}	40	V
		LL103B	V_{RRM}	30	V
		LL103C	V_{RRM}	20	V
Repetitive peak forward current	$t_p \leq 1 \text{ s}$		I_{FRM}	1	A
Forward current			I_{FM}	350	mA
Power dissipation	$T_{amb}=25^{\circ}\text{C}$		P_V	400	mW
Storage temperature range			T_{stg}	-65~+175	$^{\circ}\text{C}$

Stresses exceeding maximum ratings may damage the device. Maximum ratings are stress ratings only. Functional operation above the recommended operating conditions is not implied. Extended exposure to stresses above the recommended operating conditions may affect device reliability.

Excel Semiconductor



Electrical Characteristics

T_j=25°C

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I _F =20mA		V _F			0.37	V
	I _F =200mA		V _F			0.6	V
Reverse current	V _R =30V	LL103A	I _R			5	μA
	V _R =20V	LL103B	I _R			5	μA
	V _R =10V	LL103C	I _R			5	μA
Diode capacitance	V _R =V _F =0, f=1MHz		C _D		50		pF
Reverse recovery time	I _F = I _R =200mA to 0.1mA I _R		t _{rr}		10		ns

Characteristics (T_j=25°C unless otherwise specified)

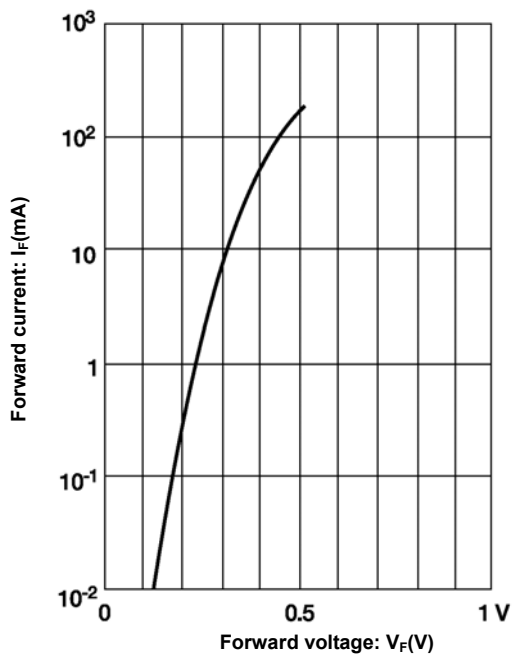


Figure 1. Typical variation of forward current vs. forward voltage for primary conduction through the schottky barrier

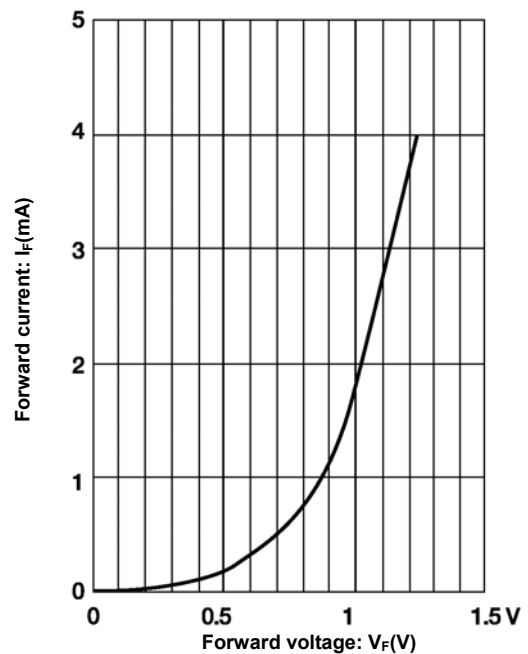


Figure 2. Typical high current forward conduction curve t_p=300ms, duty cycle=2%

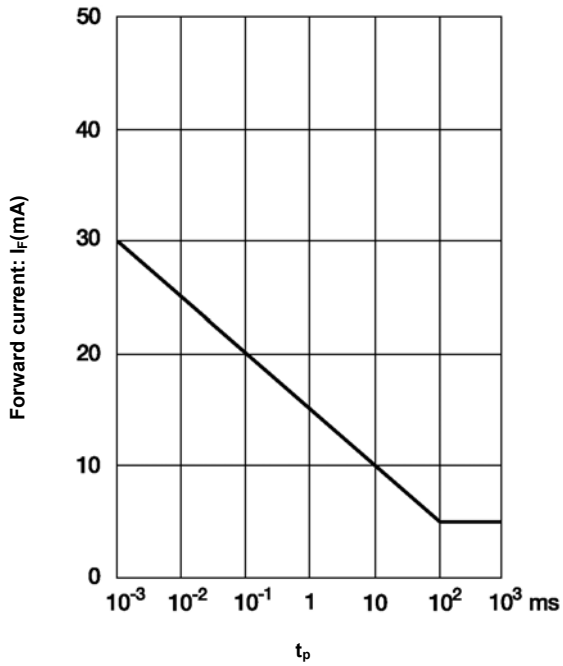


Figure 3. Typical non repetitive forward surge current vs. pulse width

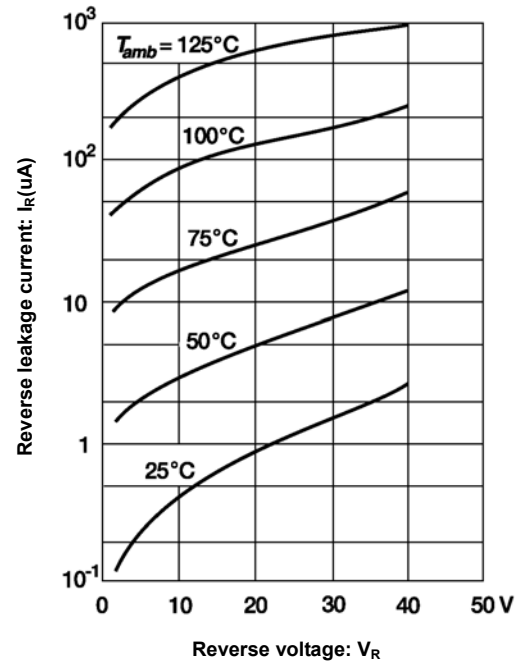


Figure 4. Typical variation of reverse current at various temperatures

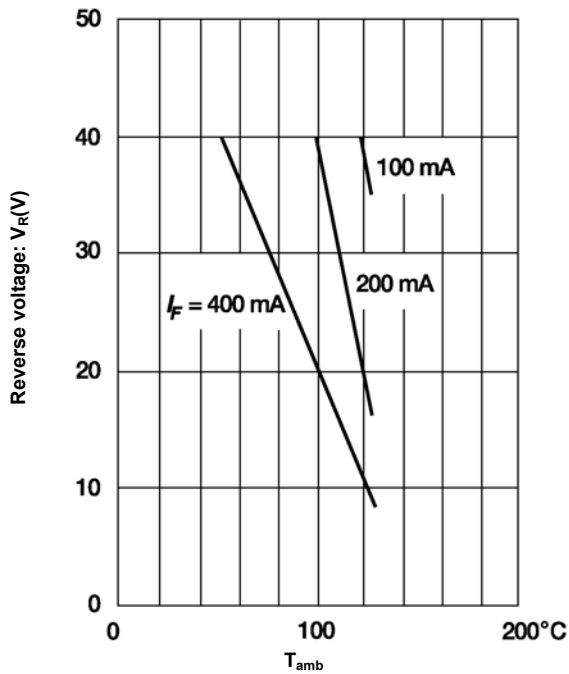


Figure 5. Blocking voltage duration vs. temperature at various average forward current

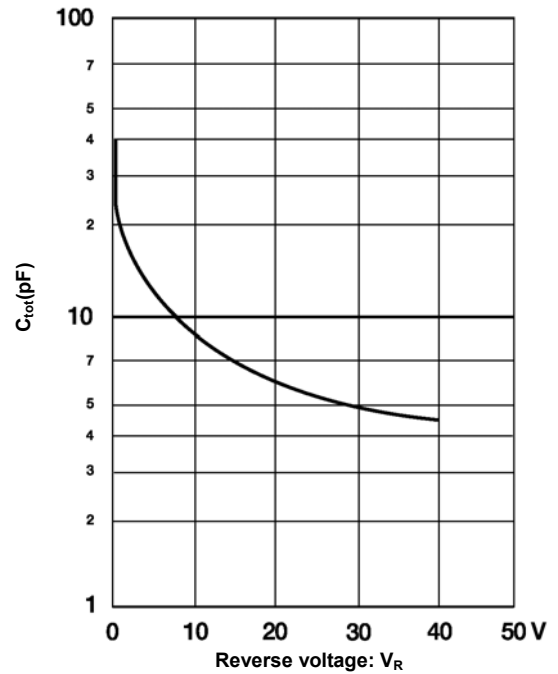
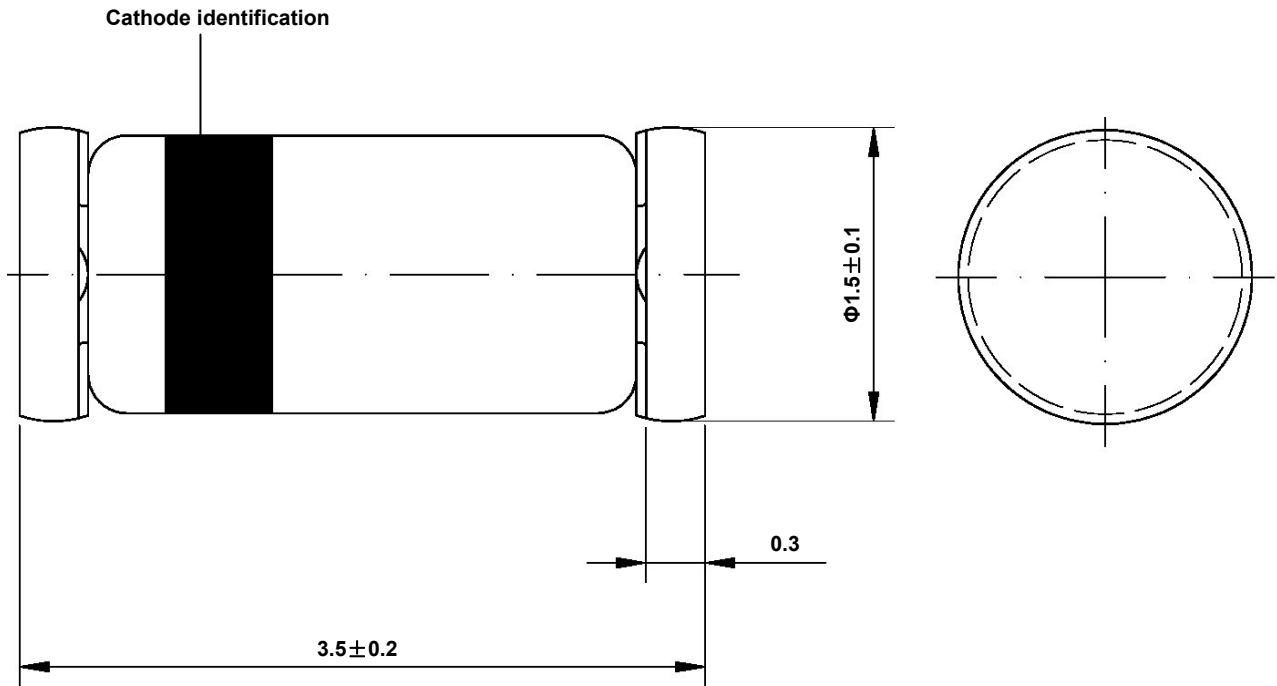


Figure 6. Typical capacitance vs. reverse voltage



Dimensions in mm



Glass Case
Mini Melf / SOD-80
JEDEC DO-213 AA