

## Small-Signal Diodes

### Features

High reliability

### Applications

For general purpose

### Absolute Maximum Ratings

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

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage		BAV100	$V_{RRM}$	60	V
		BAV101	$V_{RRM}$	120	V
		BAV102	$V_{RRM}$	200	V
		BAV103	$V_{RRM}$	250	V
Reverse voltage		BAV100	$V_{RRM}$	50	V
		BAV101	$V_R$	100	V
		BAV102	$V_R$	150	V
		BAV103	$V_R$	200	V
Peak forward surge current	$t < 1\text{s}, T_j = 25^{\circ}\text{C}$		$I_{FSM}$	1	A
Repetitive peak forward current			$I_{FRM}$	625	mA
Forward DC current	$T_{amb} = 25^{\circ}\text{C}$		$I_F$	250	mA
Rectified current (Average)			$I_{FAV}$	200	mA
Power dissipation	$T_{amb} \leq 25^{\circ}\text{C}$		$P_{tot}$	500	mW
Junction temperature			$T_j$	175	$^{\circ}\text{C}$
Storage temperature range			$T_{stg}$	-65~+175	$^{\circ}\text{C}$

### Maximum Thermal Resistance

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

Parameter	Test Conditions	Symbol	Value	Unit
Junction ambient	on PC board 50mmX50mmX1.6mm	$R_{thJA}$	500	K/W

### Electrical Characteristics

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

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=100\text{mA}$		$V_F$			1.00	V
	$V_R=50\text{V}$	BAV100	$I_R$			100	nA
	$V_R=50, T_j=100^\circ\text{C}$	BAV100	$I_R$			15	$\mu\text{A}$
Reverse current	$V_R=100\text{V}$	BAV101	$I_R$			100	nA
	$V_R=100\text{V}, T_j=100^\circ\text{C}$	BAV101	$I_R$			15	$\mu\text{A}$
	$V_R=150\text{V}$	BAV102	$I_R$			100	nA
	$V_R=150\text{V}, T_j=100^\circ\text{C}$	BAV102	$I_R$			15	$\mu\text{A}$
	$V_R=200\text{V}$	BAV103	$I_R$			100	nA
	$V_R=200\text{V}, T_j=100^\circ\text{C}$	BAV103	$I_R$			15	$\mu\text{A}$
Dynamic forward resistance	$I_F=10\text{mA}$		$r_f$		5		
Diode capacitance	$V_R=0, f=1\text{MHz}$		$C_D$		1.5		pF
Reverse recovery time	$I_F=I_R=30\text{mA}, I_{rr}=3\text{mA}, R_L=100\ \Omega$		$t_{rr}$			50	ns

### Characteristics ( $T_j=25^\circ\text{C}$ unless otherwise specified)

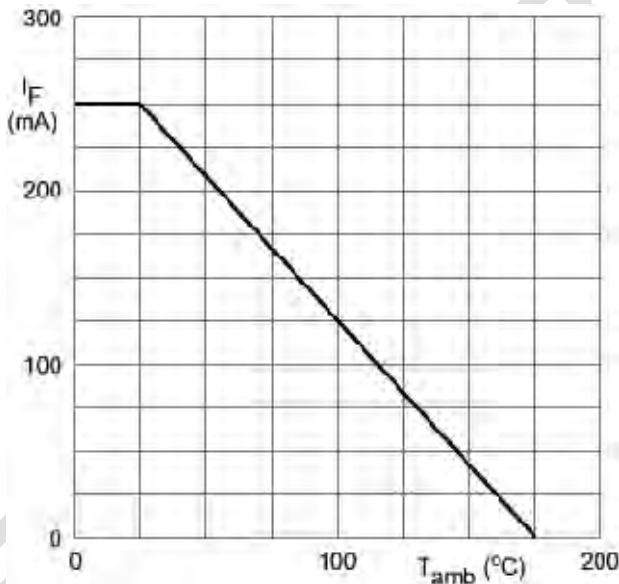


Figure 1. Maximum permissible continuous forward current vs. ambient temperature

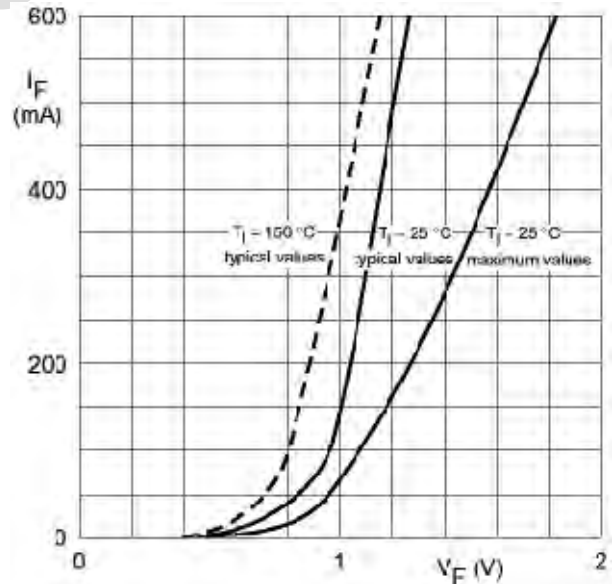


Figure 2. Forward current vs. forward voltage

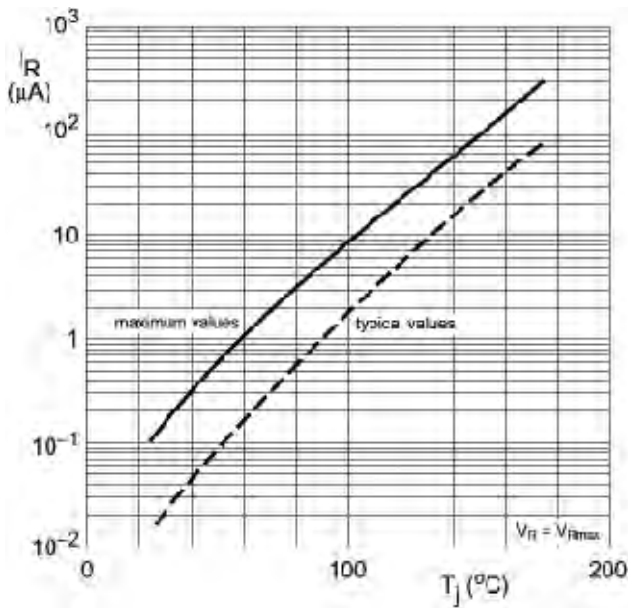


Figure 3. Reverse current vs. junction temperature

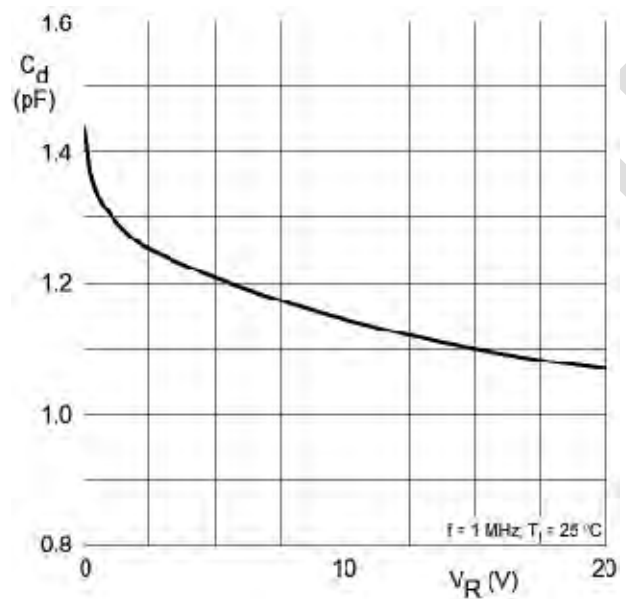


Figure 4. Diode capacitance vs. reverse voltage (Typical values)

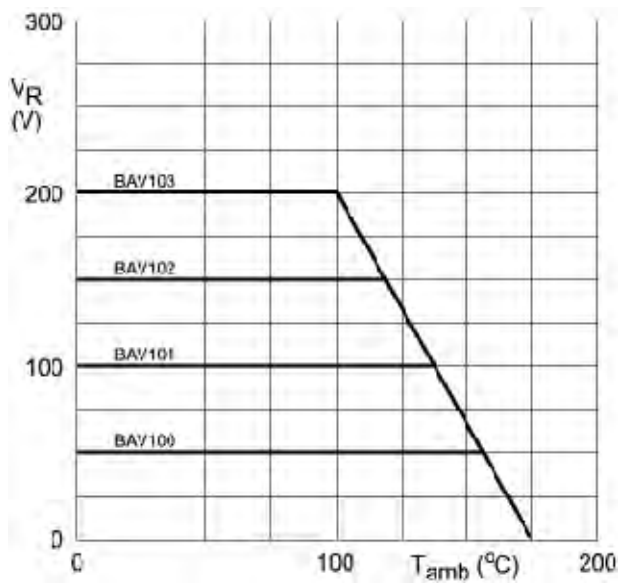
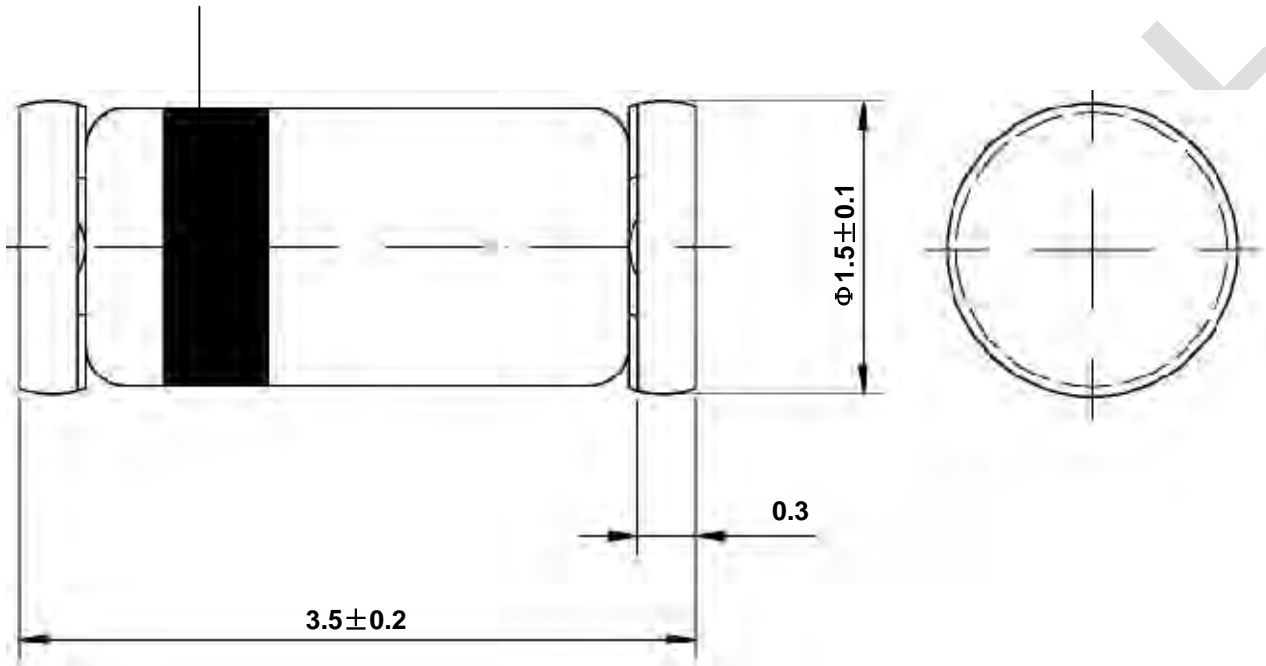


Figure 3. Maximum permissible continuous reverse voltage vs. ambient temperature

## Dimensions in mm

Cathode identification



Glass Case  
Mini Melf / SOD 80  
JEDEC DO 213 AA