Small-Signal Diodes

Features

High reliability

Applications

For general purpose

Absolute Maximum Ratings

T_j=25℃

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<1s, T_j=25℃		I_{FSM}	1	A
Repetitive peak forward current			I_{FRM}	625	mA
Forward DC current	T_{amb}=25℃		I_F	250	mA
Rectified current (Average)			I_{FAV}	200	mA
Power dissipation	T_{amb}≤25℃		P_{tot}	500	mW
Junction temperature			T_j	175	℃
Storage temperature range			T_{stg}	-65~+175	℃

Maximum Thermal Resistance

T_j=25℃

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

Electrical Characteristics

T_j=25℃

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

Characteristics (T_j=25℃ unless otherwise specified)

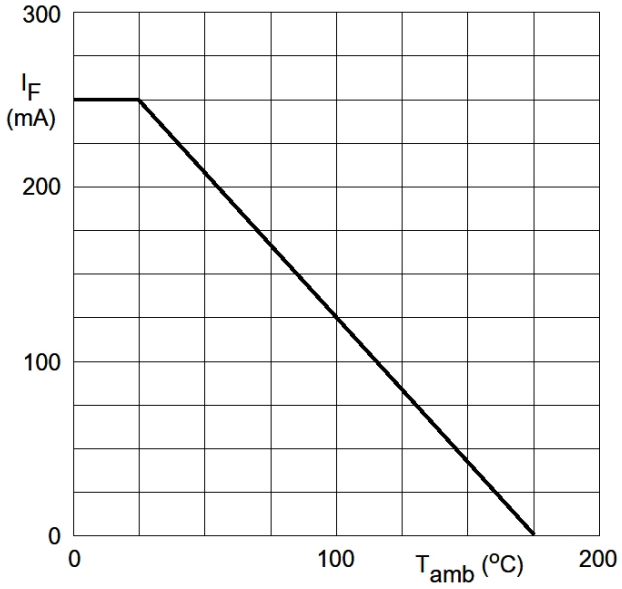


Figure 1. Maximum permissible continuous forward current vs. ambient temperature

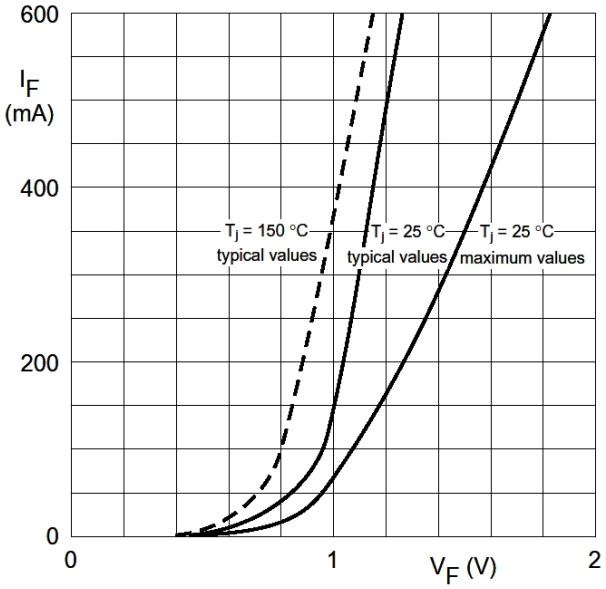


Figure 2. Forward current vs. forward voltage

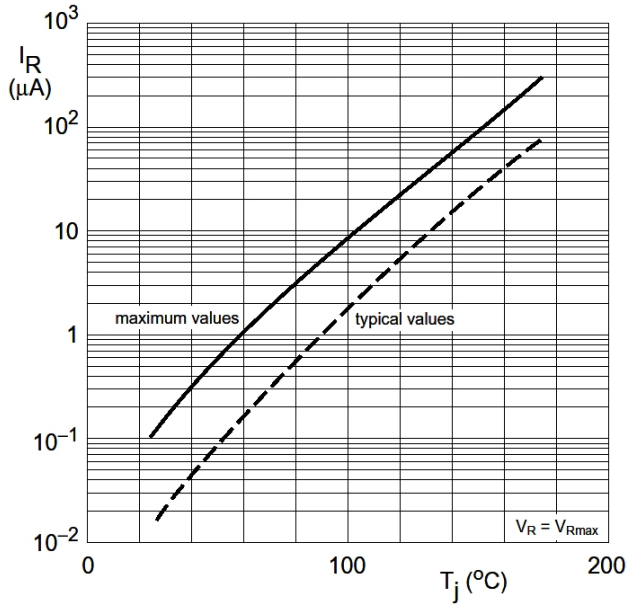


Figure 3. Reverse current vs. junction temperature

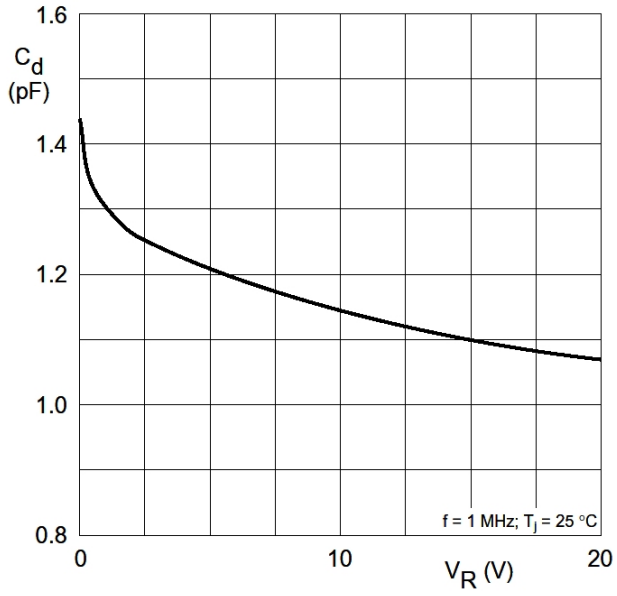


Figure 4. Diode capacitance vs. reverse voltage (Typical values)

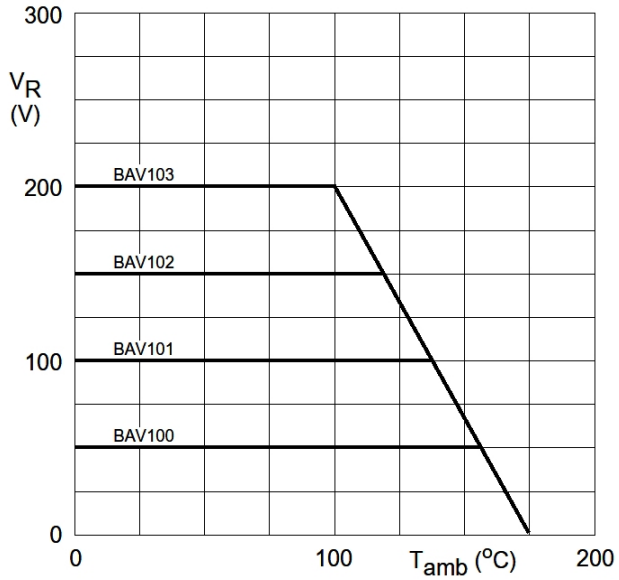
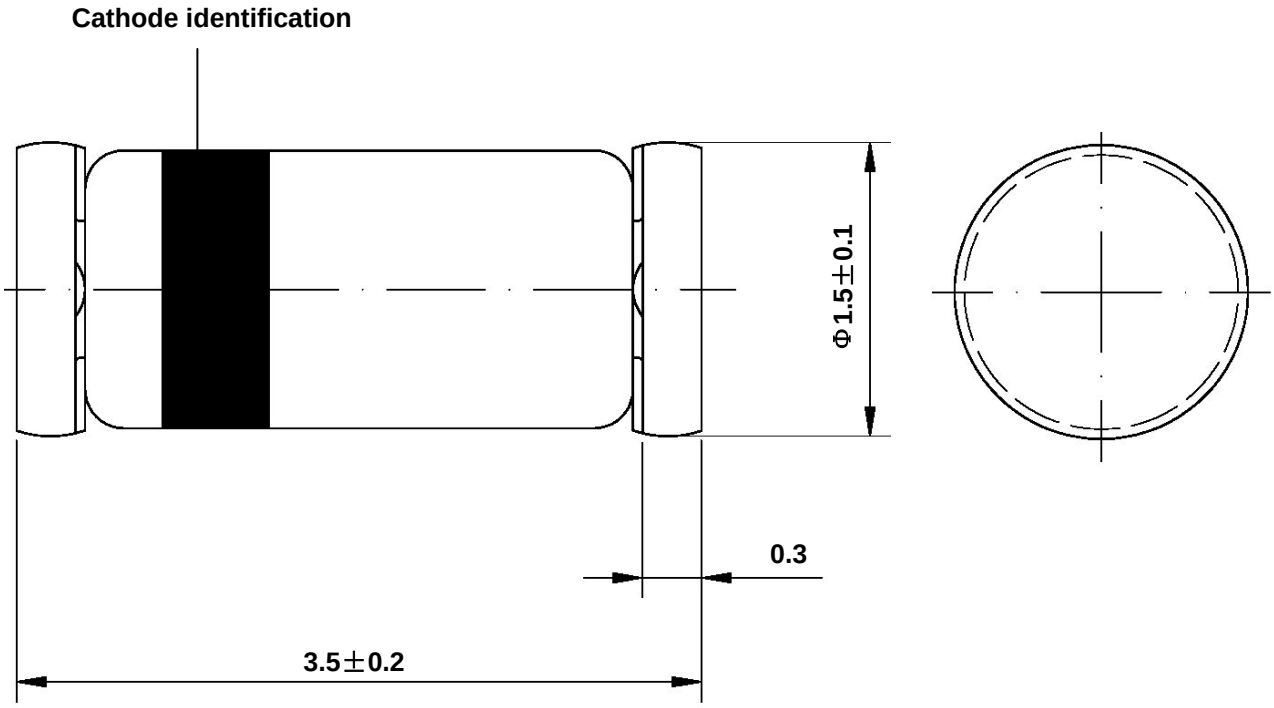


Figure 3. Maximum permissible continuous reverse voltage vs. ambient temperature

Dimensions in mm



Glass Case
Mini Melf / SOD 80
JEDEC DO 213 AA