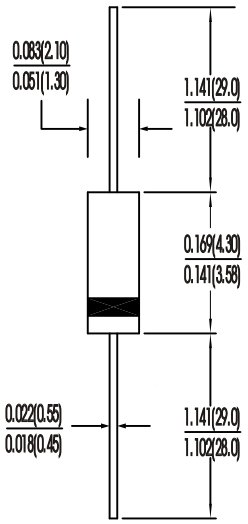
SMALL SIGNAL SWITCHING DIODES

DO-35(GLASS)



Dimensions in inches and (millimeters)

Features

High reliability

Applications

For general purpose

Absolute Maximum Ratings

T_j=25℃

Parameter	Test Conditions	Type	Symbol	Value	Unit
Repetitive peak reverse voltage		BAV19	V_{RRM}	120	V
		BAV20	V_{RRM}	200	V
		BAV21	V_{RRM}	250	V
Reverse voltage		BAV19	V_R	100	V
		BAV20	V_R	150	V
		BAV21	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	l=4mm T_L=constant	R_{thJA}	350	K/W

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.

RATINGS AND CHARACTERISTIC CURVES

Electrical Characteristics

T_j=25℃

Parameter	Test Conditions	Type	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F=100mA		V_F			1.00	V
Reverse current	V_R=100V	BAV19	I_R			100	nA
	V_R=100V, T_j=100℃	BAV19	I_R			15	μA
	V_R=150V	BAV20	I_R			100	nA
	V_R=150V, T_j=100℃	BAV20	I_R			15	μA
	V_R=200V	BAV21	I_R			100	nA
	V_R=200V, T_j=100℃	BAV21	I_R			15	μA
Dynamic forward resistance	I_F=10mA		r_f		5		Ω
Diode capacitance	V_R=0, f=1MHz		C_D			4	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)

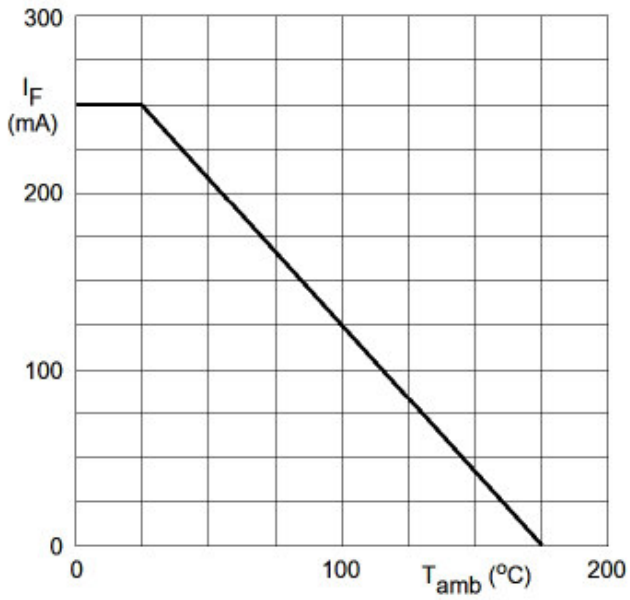


Figure 1. Maximum permissible continuous forward current vs. ambient temperature

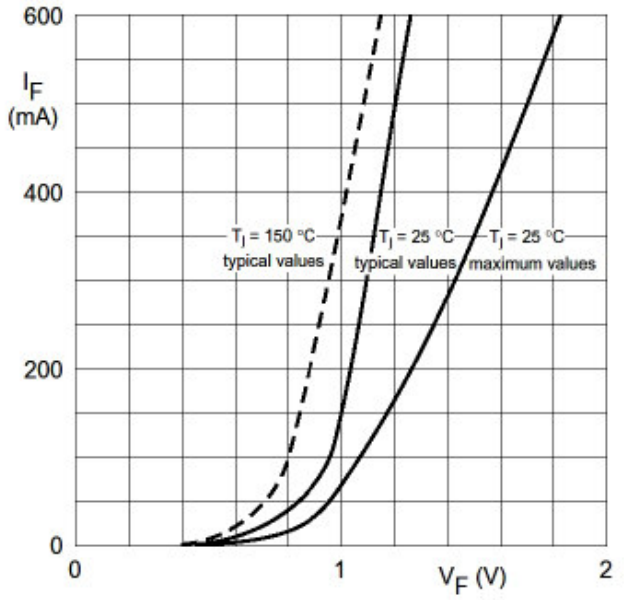


Figure 2. Forward current vs. forward voltage

RATINGS AND CHARACTERISTIC CURVES

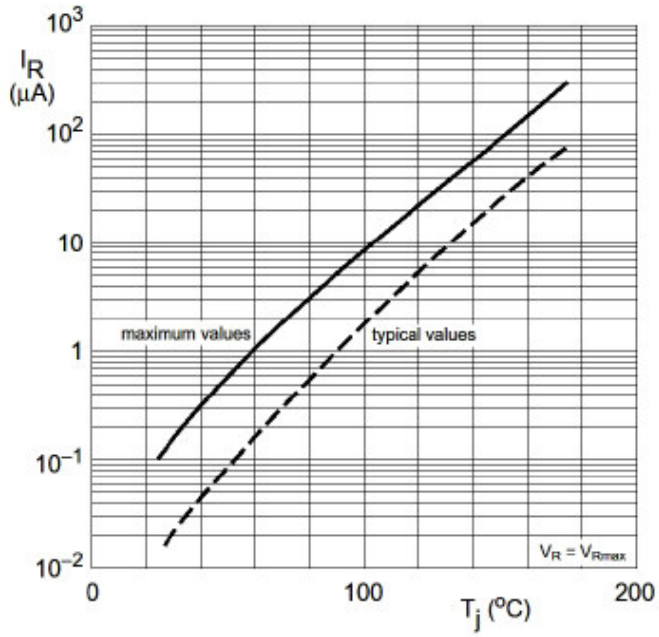


Figure 3. Reverse current vs. junction temperature

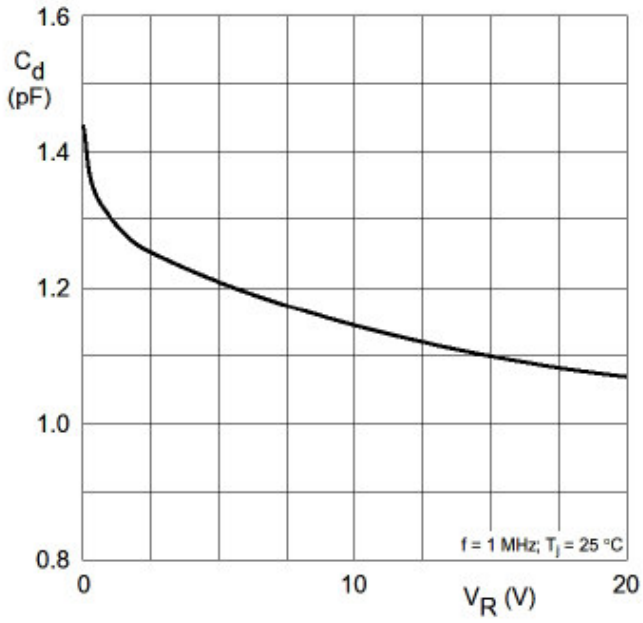


Figure 4. Diode capacitance vs. reverse voltage (Typical values)

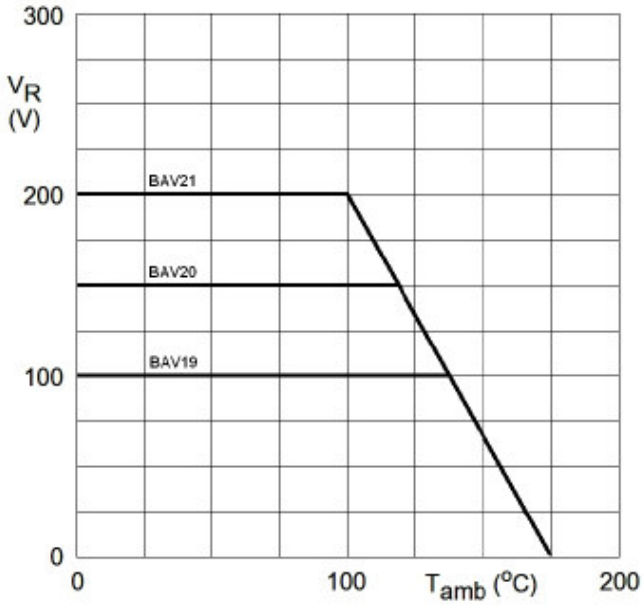


Figure 3. Maximum permissible continuous reverse voltage vs. ambient temperature

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