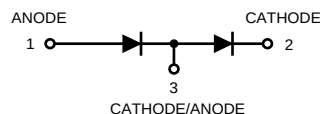


Dual Series Switching Diode

Lead free product

Halogen-free type

BAV99GH



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Continuous Reverse Voltage	V_R	70	Vdc
Peak Forward Current	I_F	215	mAdc
Peak Forward Surge Current	$I_{FM}(\text{surge})$	500	mAdc
Repetitive Peak Reverse Voltage	V_{RRM}	70	Vdc
Average Rectified Forward Current ⁽¹⁾ (averaged over any 20 ms period)	$I_{F(AV)}$	715	mAdc
Repetitive Peak Forward Current	I_{FRM}	450	mAdc
Non-Repetitive Peak Forward Current	I_{FSM}	2.0 1.0 0.5	A
		$t=1.0 \mu\text{s}$ $t=1.0 \text{ ms}$ $t=1.0 \text{ S}$	

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max.	Unit
Total Device Dissipation FR-5 Board ⁽¹⁾ $T_A=25^\circ\text{C}$ Derate above 25°C	P_D	225 1.8	mW mW / $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C} / \text{W}$
Total Device Dissipation Alumina Substrate, ⁽²⁾ $T_A=25^\circ\text{C}$ Derate above 25°C	P_D	300 2.4	mW mW / $^\circ\text{C}$
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C} / \text{W}$
Junction and Storage Temperature	T_J, T_{STG}	-65 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted) (Continued) (EACH DIODE)

Characteristic	Symbol	Min.	Max.	Unit
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OFF CHARACTERISTICS

Reverse Breakdown Voltage ($I_{BR}=100\mu\text{Adc}$)		$V_{(BR)}$	70	-	Vdc
Forward Voltage	($I_F=1.0 \text{ mAdc}$)	V_F	-	715	mVdc
	($I_F=10 \text{ mAdc}$)		-	855	
	($I_F=50 \text{ mAdc}$)		-	1000	
	($I_F=150 \text{ mAdc}$)		-	1250	
Reverse Voltage Leakage Current	($V_R=70 \text{ Vdc}$)	I_R	-	2.5	μAdc
	($V_R=25 \text{ Vdc}, T_J=150^\circ\text{C}$)		-	30	
	($V_R=70 \text{ Vdc}, T_J=150^\circ\text{C}$)		-	50	
Diode Capacitance ($V_R=0, f=1.0\text{MHz}$)		C_J	-	1.5	pF
Reverse Recovery Time ($I_F=I_R=10 \text{ mAdc}, I_R(\text{REC})=1.0\text{mA}, R_L=50\Omega$)		t_{rr}	-	6.0	nS
Forward Recovery Voltage ($I_F=10 \text{ mAdc}, t_r=20\text{nS}$)		V_{FR}	-	1.75	Vdc

(1) FR-5=1.0 × 0.75 × 0.062in.

(2) Alumina=0.4 × 0.3 × 0.024in. 99.5% alumina.