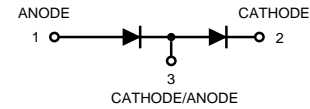


Silicon Switching Diode

* Lead free product

* Halogen-free type

BAV99WGH



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	VR	70	Vdc
Forward Current	IF	200	mAdc
Forward Surge Current, t=1us	IFM(surge)	4.5	Adc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Total Power Dissipation, Ts=110°C	Ptot	250	mW
Junction Temperature	TJ	150	°C
Storage Temperature	TSTG	-65 to +150	°C
Junction Soldering Point ⁽¹⁾	RθJS	160	K / W

(1) For calculation of RθJA Please refer to Application Thermal Resistance.

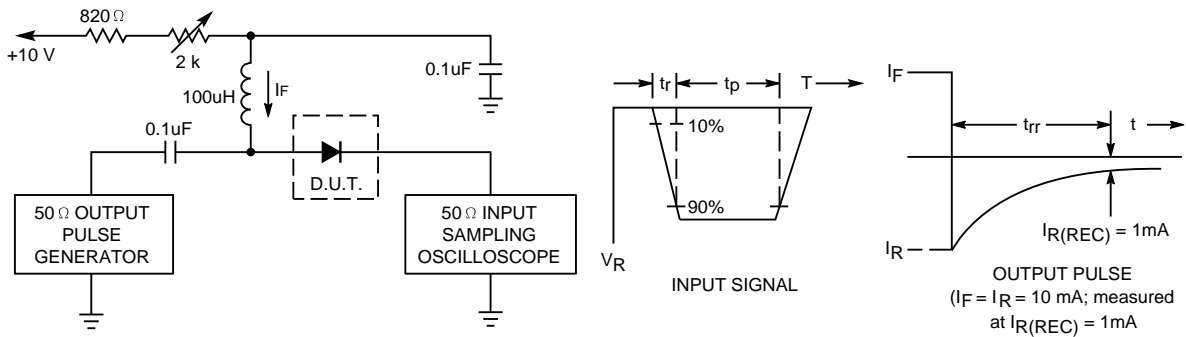
ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted) (EACH DIODE)

Characteristic	Symbol	Min.	Max.	Unit
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OFF CHARACTERISTICS

Reverse Breakdown Voltage (I(BR) = 100uAdc)	V(BR)	70	-	Vdc
Reverse Voltage Leakage Current (VR=25Vdc, TJ=150°C) (VR=70Vdc) (VR=70Vdc, TJ=150°C)	IR	- - -	30 2.5 50	uAdc
Diode Capacitance (VR=0, f = 1.0 MHz)	CD	-	1.5	pF
Forward Voltage (IF = 1.0 mAdc) (IF = 10 mAdc) (IF = 50 mAdc) (IF = 150 mAdc)	VF	- - - -	715 855 1000 1250	mVdc
Reverse Recovery Time (IF = IR = 10 mAdc, IR(REC) = 1.0 mAdc) (Figure 1) RL = 100 Ω	trr	-	6.0	nS

FIGURE 1. RECOVERY TIME EQUIVALENT TEST CIRCUIT



- Notes: 1. A 2.0kΩ variable resistor adjusted for a Forward Current (I_F) of 10mA.
- 2. Input pulse is adjusted so $I_{R(peak)}$ is equal to 10mA.
- 3. $t_p \gg t_{rr}$

FIGURE 2. FORWARD VOLTAGE

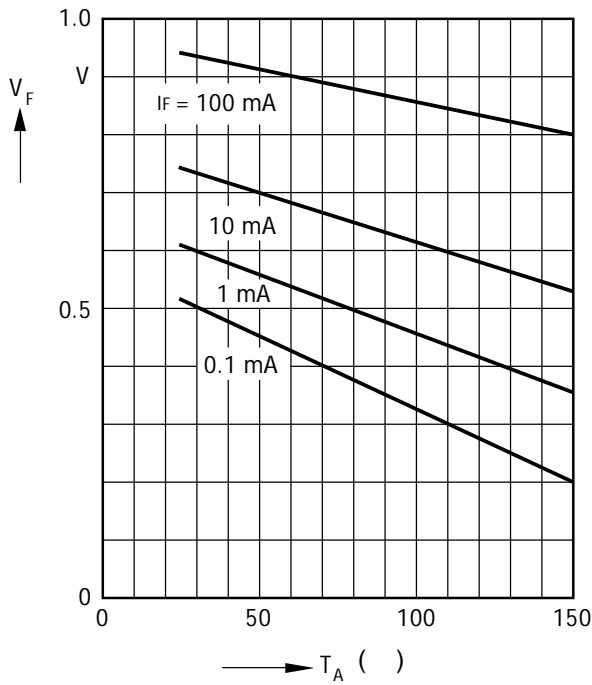


FIGURE 3. REVERSE CURRENT

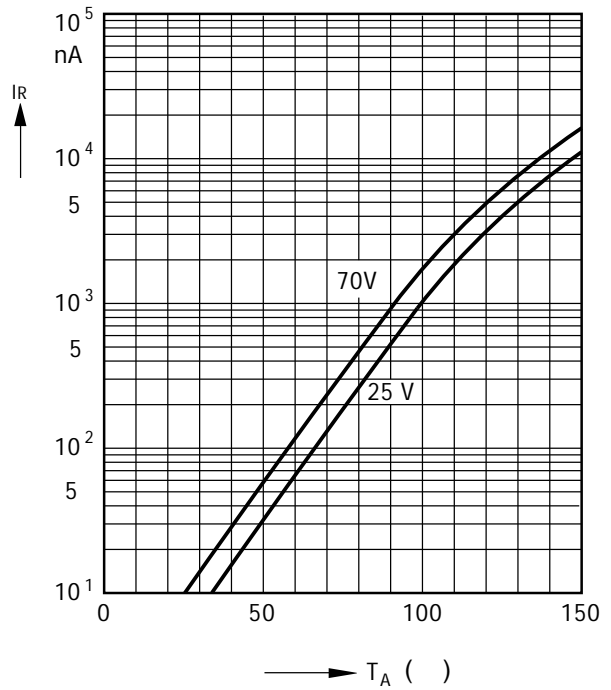


FIGURE 4. FORWARD CURRENT $I_F=f(T_S)$

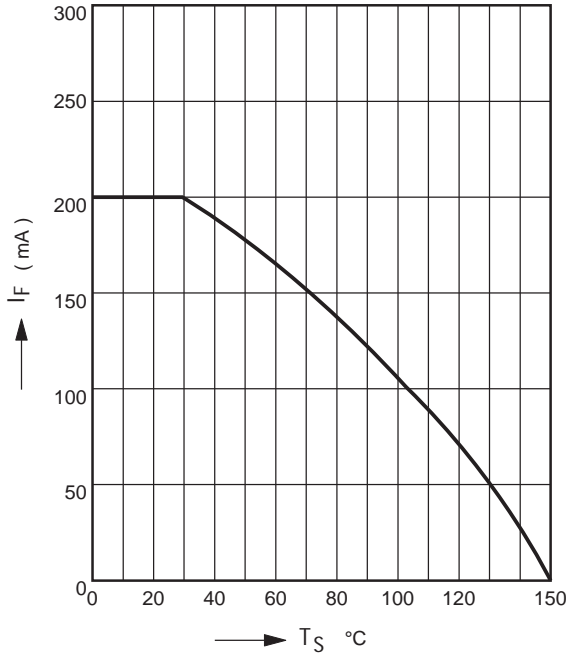


FIGURE 5. FORWARD CURRENT $I_F=f(V_F)$

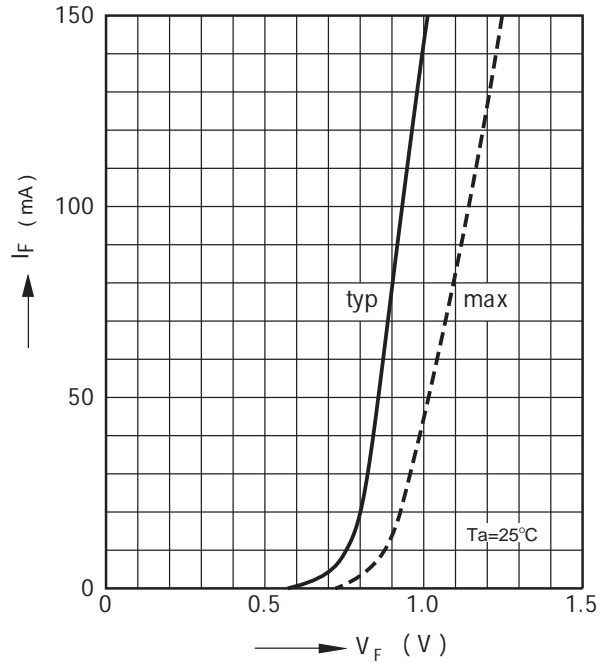


FIGURE 6. PERMISSIBLE PULSE LOAD $R_{\theta JS}=f(t_p)$

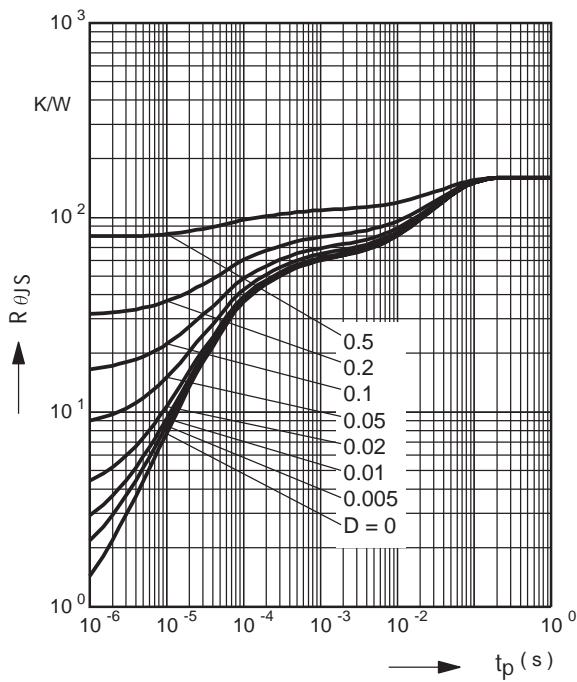


FIGURE 7. PERMISSIBLE PULSE LOAD $I_{Fmax}/I_{FDC}=f(t_p)$

