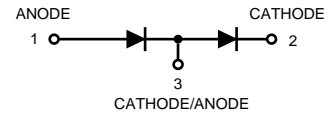


Silicon Switching Diode

* Lead free product

* Halogen-free type

BAV99WGH



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	V _R	70	V _{dc}
Forward Current	I _F	200	mAdc
Forward Surge Current, t=1us	I _{FM} (surge)	4.5	Adc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Total Power Dissipation, T _s =110°C	P _{tot}	250	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-65 to +150	°C
Junction Soldering Point ⁽¹⁾	R _{θJS}	160	K / W

(1) For calculation of R_{θJA} Please refer to Application Thermal Resistance.

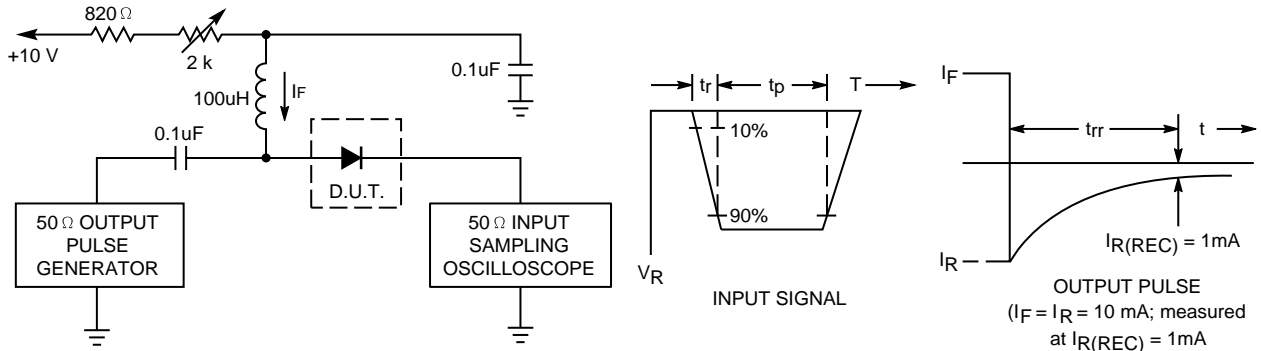
ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted) (EACH DIODE)

Characteristic	Symbol	Min.	Max.	Unit
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OFF CHARACTERISTICS

Reverse Breakdown Voltage (I _{BR} = 100uAdc)	V _(BR)	70	-	V _{dc}
Reverse Voltage Leakage Current (V _R =25V _{dc} , T _J =150°C) (V _R =70V _{dc}) (V _R =70V _{dc} , T _J =150°C)	I _R	- - -	30 2.5 50	uAdc
Diode Capacitance (V _R =0, f = 1.0 MHz)	C _D	-	1.5	pF
Forward Voltage (I _F = 1.0 mAdc) (I _F = 10 mAdc) (I _F = 50 mAdc) (I _F = 150 mAdc)	V _F	- - - -	715 855 1000 1250	mV _{dc}
Reverse Recovery Time (I _F = I _R = 10 mAdc, I _R (REC) = 1.0 mAdc) (Figure 1) R _L = 100 Ω	t _{rr}	-	6.0	nS

FIGURE 1. RECOVERY TIME EQUIVALENT TEST CIRCUIT



- Notes: 1. A 2.0kΩ variable resistor adjusted for a Forward Current (IF) of 10mA.
- 2. Input pulse is adjusted so IR(peak) is equal to 10mA.
- 3. tp > trr

FIGURE 2. FORWARD VOLTAGE

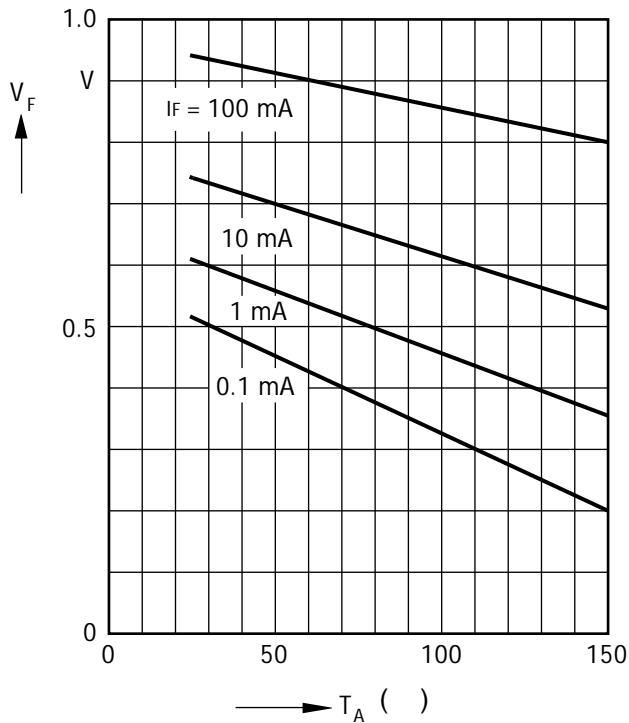


FIGURE 3. REVERSE CURRENT

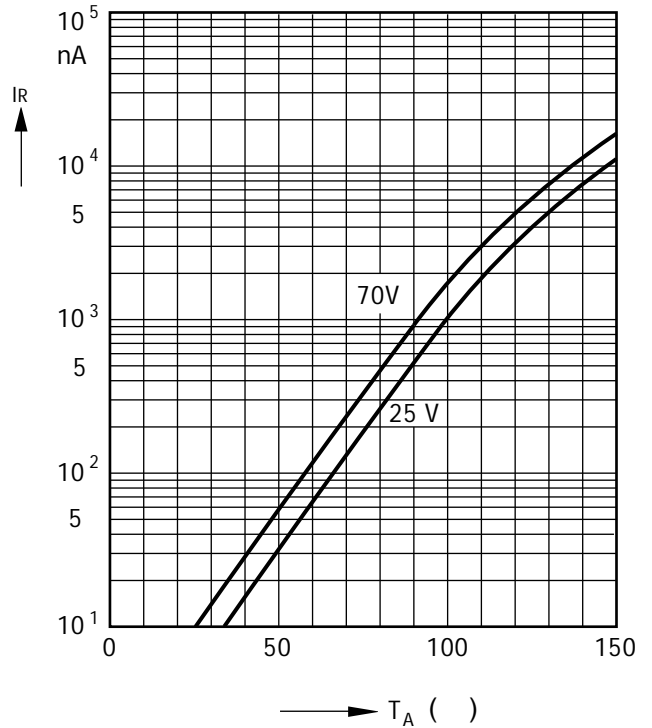


FIGURE 4. FORWARD CURRENT $I_F=f(T_S)$

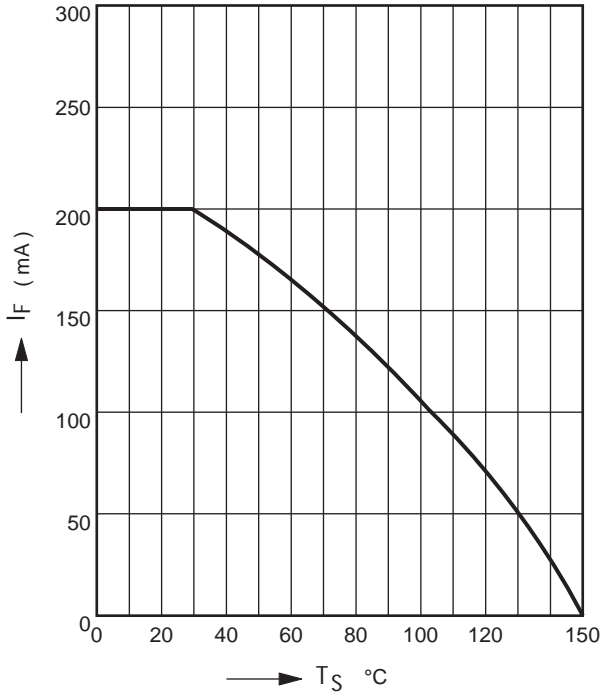


FIGURE 5. FORWARD CURRENT $I_F=f(V_F)$

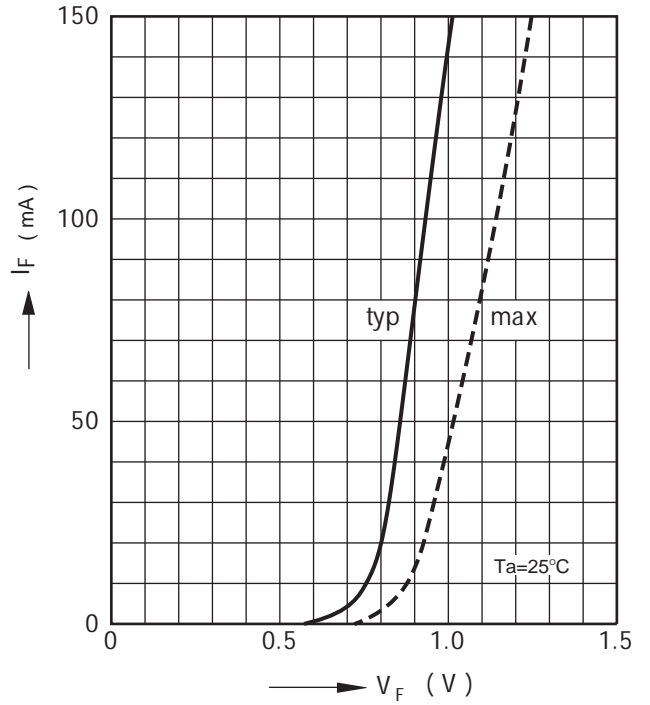


FIGURE 6. PERMISSIBLE PULSE LOAD $R_{\theta JS}=f(t_p)$

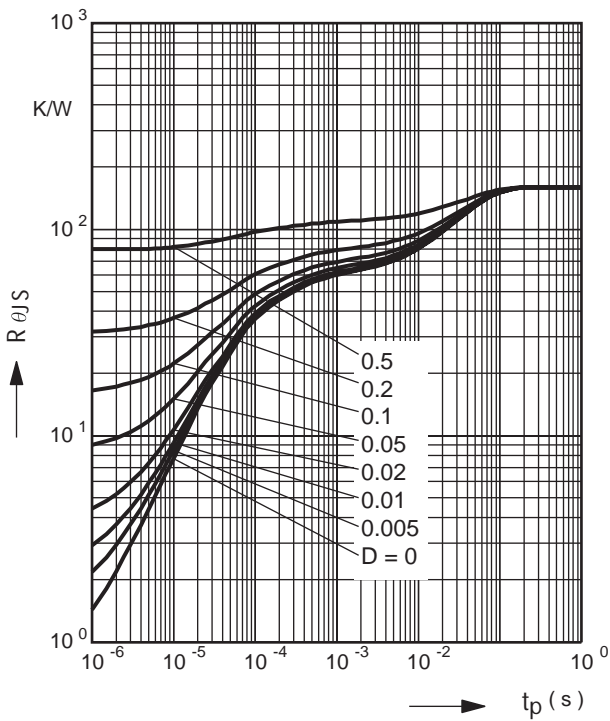


FIGURE 7. PERMISSIBLE PULSE LOAD $I_{Fmax}/I_{FDC}=f(t_p)$

