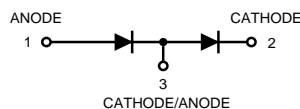


Silicon Switching Diode

Lead free product

BAV99WG



MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Reverse Voltage	V_R	70	Vdc
Forward Current	I_F	200	mAdc
Forward Surge Current, $t=1\mu s$	$I_{FM}(\text{surge})$	4.5	Adc

THERMAL CHARACTERISTICS

Characteristic	Symbol	Value	Unit
Total Power Dissipation, $T_s=110^\circ\text{C}$	P_{tot}	250	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-65 to +150	$^\circ\text{C}$
Junction Soldering Point ⁽¹⁾	$R_{\theta JS}$	160	K / W

(1) For calculation of $R_{\theta JA}$ Please refer to Application Thermal Resistance.

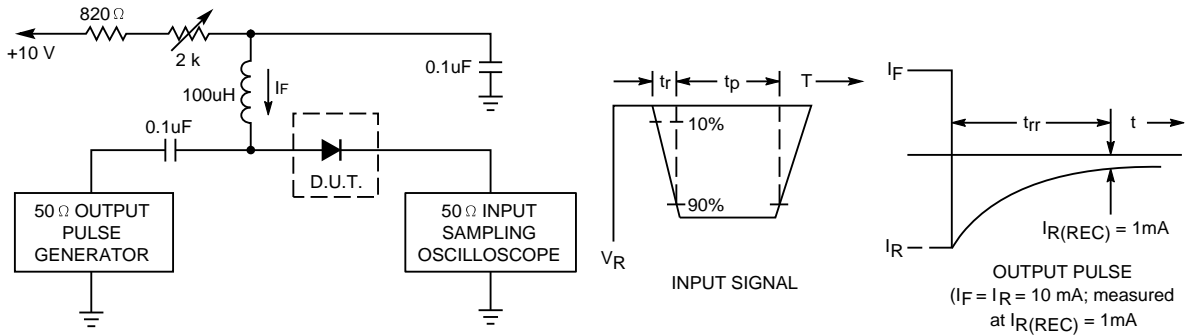
ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted) (EACH DIODE)

Characteristic	Symbol	Min.	Max.	Unit
----------------	--------	------	------	------

OFF CHARACTERISTICS

Reverse Breakdown Voltage ($I_{BR} = 100\mu\text{Adc}$)	$V_{(BR)}$	70	-	Vdc
Reverse Voltage Leakage Current ($V_R=25\text{Vdc}$, $T_J=150^\circ\text{C}$) ($V_R=70\text{Vdc}$) ($V_R=70\text{Vdc}$, $T_J=150^\circ\text{C}$)	I_R	- - -	30 2.5 50	μAdc
Diode Capacitance ($V_R=0$, $f = 1.0\text{ MHz}$)	C_D	-	1.5	pF
Forward Voltage ($I_F = 1.0\text{ mAdc}$) ($I_F = 10\text{ mAdc}$) ($I_F = 50\text{ mAdc}$) ($I_F = 150\text{ mAdc}$)	V_F	- - - -	715 855 1000 1250	mVdc
Reverse Recovery Time ($I_F = I_R = 10\text{ mAdc}$, $I_R(\text{REC}) = 1.0\text{ mAdc}$) (Figure 1) $R_L = 100\ \Omega$	t_{rr}	-	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

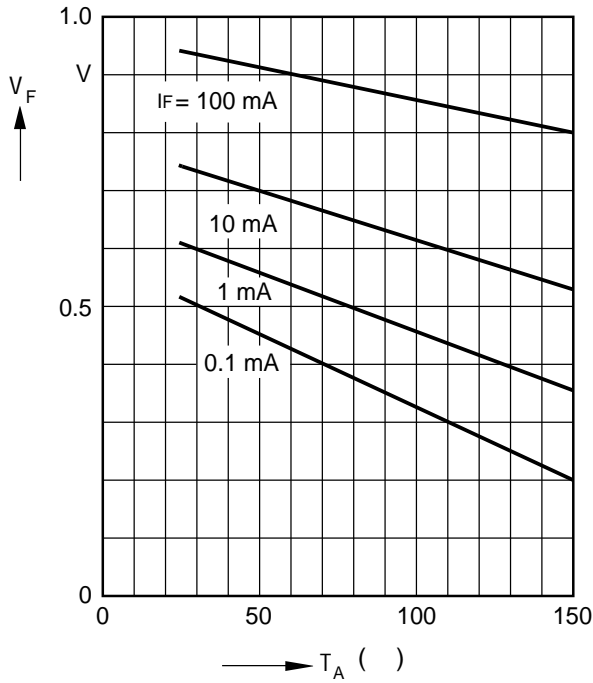


FIGURE 3. REVERSE CURRENT

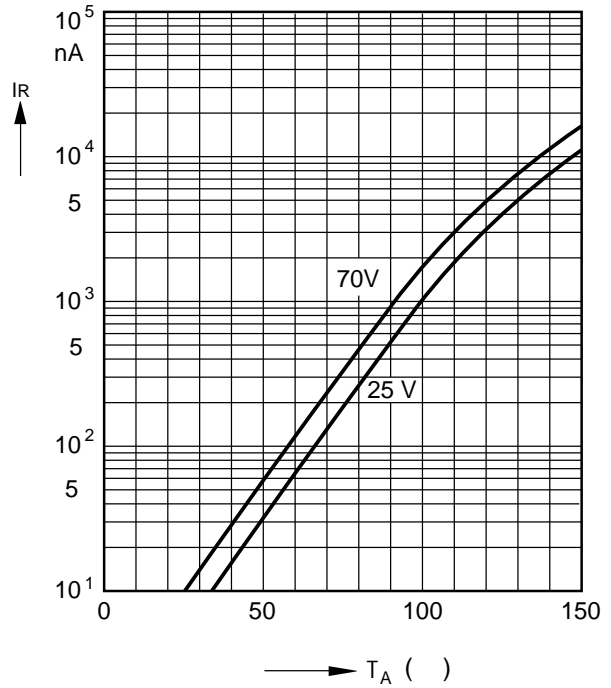


FIGURE 4. FORWARD CURRENT $I_F=f(T_S)$

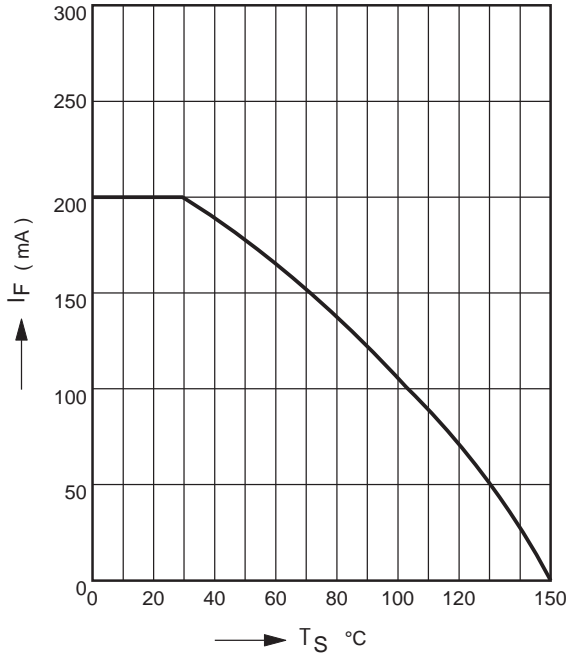


FIGURE 5. FORWARD CURRENT $I_F=f(V_F)$

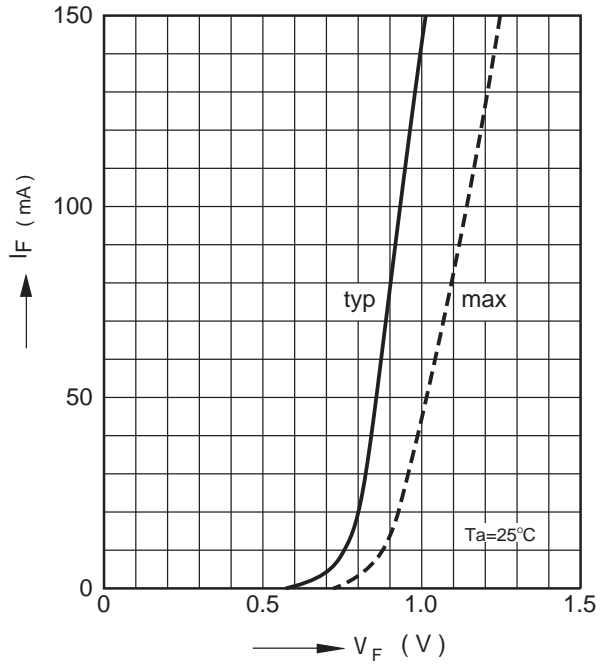


FIGURE 6. PERMISSIBLE PULSE LOAD $R_{\theta JS}=f(t_p)$

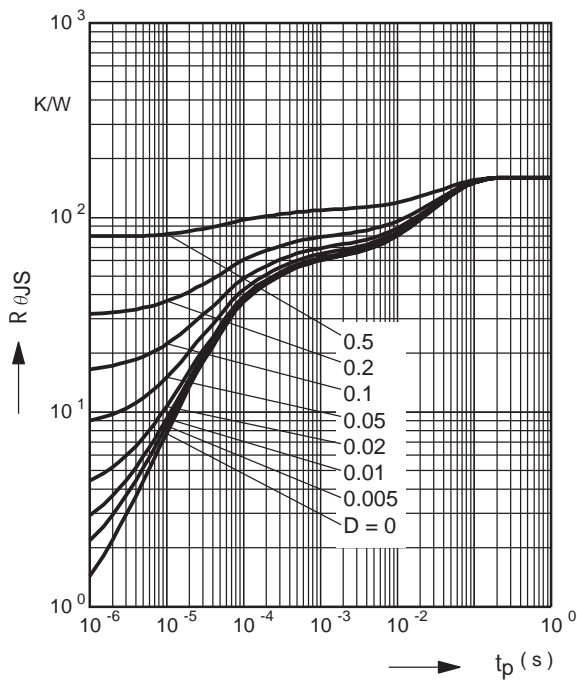
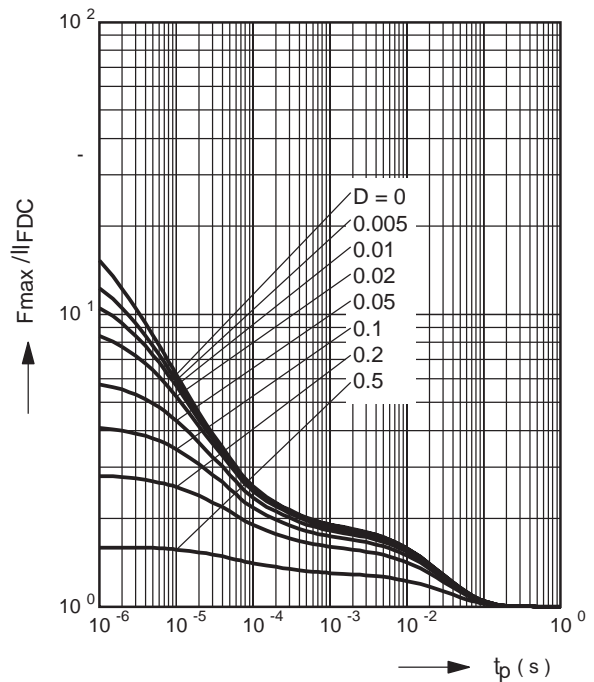
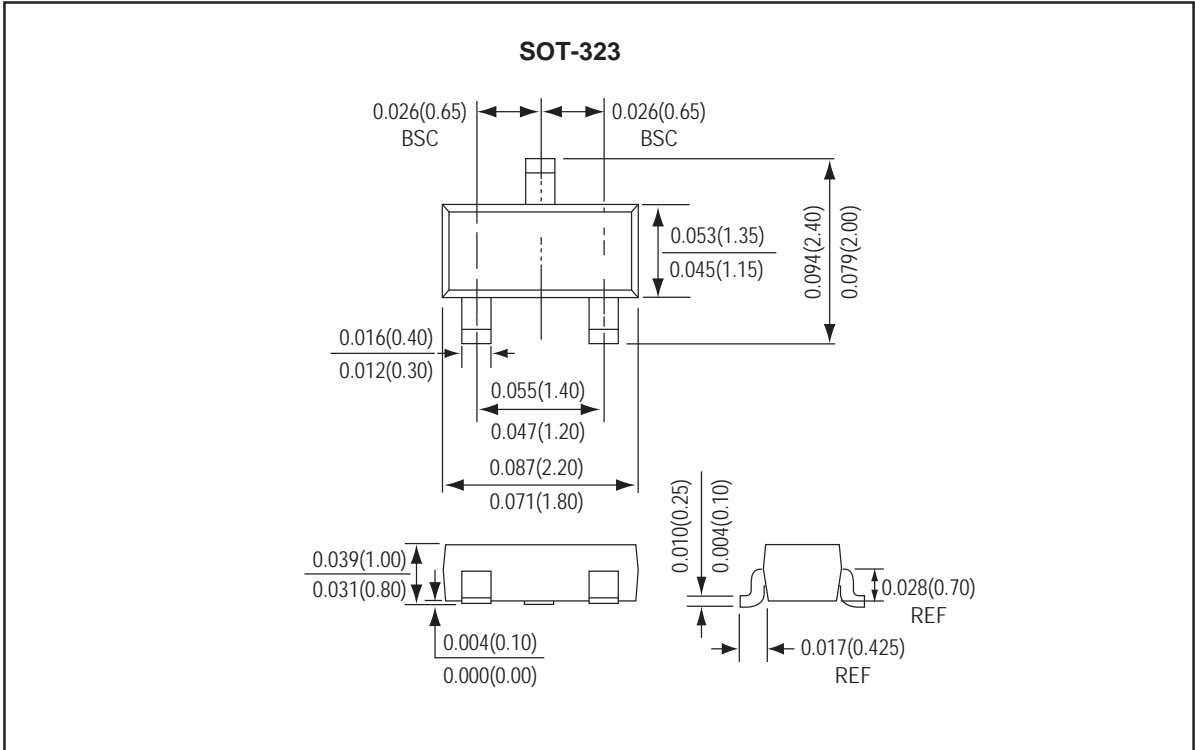


FIGURE 7. PERMISSIBLE PULSE LOAD $I_{Fmax}/I_{FDC}=f(t_p)$



Package Outline

*Dimensions in inches and (millimeters)



Mounting Pad Layout

*Dimensions in inches and (millimeters)

