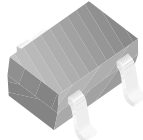
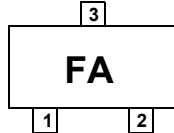


# BAV99WT1G

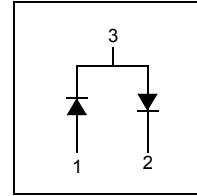
## Small Signal Diode



SOT-323



Connection Diagram



### Absolute Maximum Ratings \* $T_a = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Unit
$V_{RRM}$	Maximum Repetitive Reverse Voltage	70	V
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
$I_{FSM}$	Non-repetitive Peak Forward Surge Current Pulse Width = 1.0 second Pulse Width = 1.0 microsecond	1.0	A
		2.0	A
$T_{STG}$	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	150	$^\circ\text{C}$

### Thermal Characteristics

Symbol	Parameter	Value	Unit
$P_D$	Power Dissipation	270	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	460	$^\circ\text{C/W}$

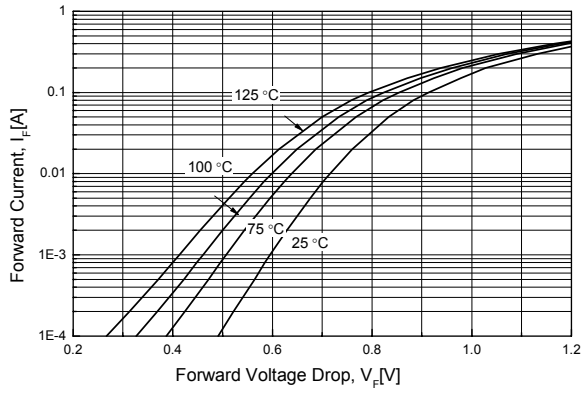
FR-4 board (3.0 × 4.5 × 0.062" by 1.0 × 0.5" land pads)

### Electrical Characteristics $T_C = 25^\circ\text{C}$ unless otherwise noted

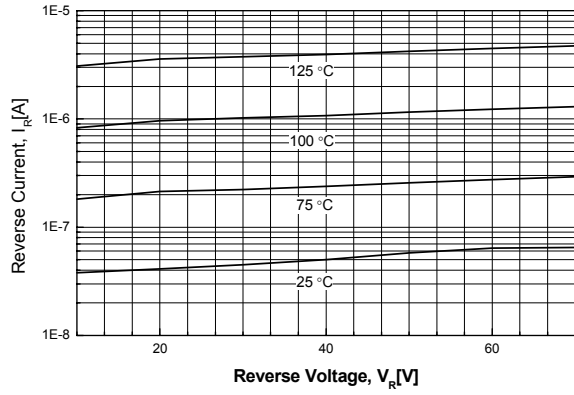
Symbol	Parameter	Conditions	Min.	Max	Units
$V_R$	Breakdown Voltage	$I_R = 100\mu\text{A}$	70		V
$V_F$	Forward Voltage	$I_F = 1.0\text{mA}$		715	mV
		$I_F = 10\text{mA}$		855	mV
		$I_F = 50\text{mA}$		1.0	V
		$I_F = 150\text{mA}$		1.25	V
$I_R$	Reverse Leakage	$V_R = 70\text{V}$		2.5	$\mu\text{A}$
		$V_R = 25\text{V}, T_A = 150^\circ\text{C}$		50	$\mu\text{A}$
		$V_R = 70\text{V}, T_A = 150^\circ\text{C}$		70	$\mu\text{A}$
$C_T$	Total Capacitance	$V_R = 0\text{V}, f = 1.0\text{MHz}$		2.0	pF
$t_{rr}$	Reverse Recovery Time	$I_F = I_R = 10\text{mA}, I_{RR} = 1.0\text{mA}, R_L = 100\Omega$		6.0	ns

## Typical Performance Characteristics

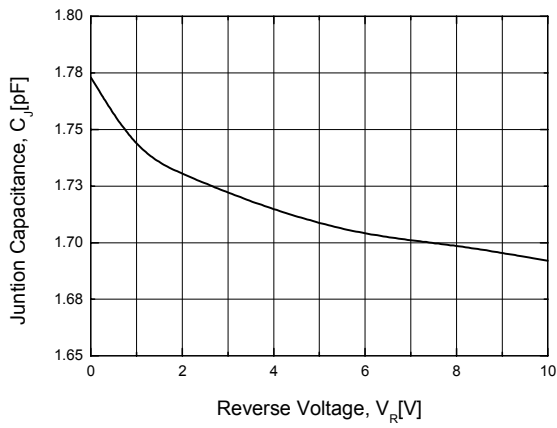
**Figure 1. Power Voltage Characteristics**



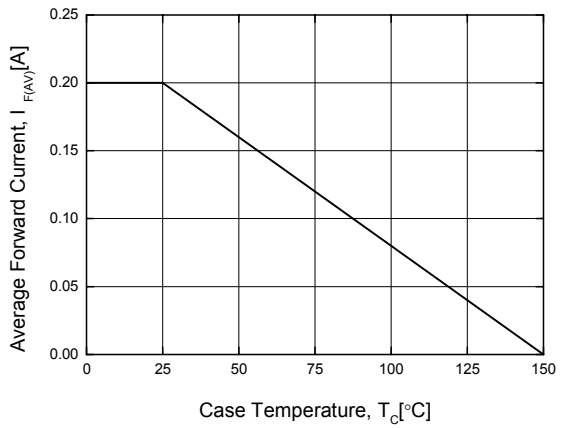
**Figure 2. Reverse Current vs Reverse Voltage**



**Figure 3. Total Capacitance**



**Figure 4. Power Derating Curve**



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CoolFET™	FRFET™	MICROCOUPLER™	PowerSaver™	SuperSOT™-3
CROSSVOLT™	GlobalOptoisolator™	MicroFET™	PowerTrench <sup>®</sup>	SuperSOT™-6
DOVE™	GTO™	MicroPak™	QFET <sup>®</sup>	SuperSOT™-8
EcoSPARK™	HiSeC™	MICROWIRE™	QS™	SyncFET™
E <sup>2</sup> CMOS™	I <sup>2</sup> C™	MSX™	QT Optoelectronics™	TinyLogic <sup>®</sup>
EnSigna™	<i>i-Lo</i> ™	MSXPro™	Quiet Series™	TINYOPTO™
FACT™	ImpliedDisconnect™	OCX™	RapidConfigure™	TruTranslation™
FACT Quiet Series™		OCXPro™	RapidConnect™	UHC™
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The Power Franchise <sup>®</sup>		OPTOPLANAR™	SILENT SWITCHER <sup>®</sup>	UniFET™
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