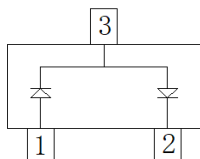


High Speed Switching Diode



SOT-23



Features

- Epoxy meets UL-94 V-0 flammability rating and halogen free
- Moisture Sensitivity Level 1
- V_{BR} 85V
- I_{FAV} 215mA@ Single diode loaded
- Part no. with suffix "Q" means AEC-Q101 qualified

Applications

- Low-Leakage

Mechanical Data

- **Case:** SOT-23
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Marking:** JY

■ Maximum Ratings ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Reverse Breakdown Voltage	V_{BR}	V		85
Average Forward Current	$I_{FAV}^{[1]}$	mA		215
Non-Repetitive Peak Forward Surge Current	I_{FSM}	A	$t_p=1\text{ us}$	4
Power Dissipation	P_D	mW		250
Thermal Resistance Junction to Ambient	R_{thJA}	$^{\circ}\text{C}/\text{W}$		357
Maximum Junction Temperature	T_j	$^{\circ}\text{C}$		150
Storage Temperature Range	T_{stg}	$^{\circ}\text{C}$		-55 to +150

[1] Single diode loaded

■ Electrical Characteristics ($T_a=25^{\circ}\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN.	TPY.	MAX.
Forward Voltage	V_F	mV	$I_F=1\text{mA}$			900
			$I_F=10\text{mA}$			1000
			$I_F=50\text{mA}$			1100
			$I_F=150\text{mA}$			1250
Reverse Current	I_R	nA	$V_R=75\text{V}$			5
Reverse Breakdown Voltage	V_{BR}	V	$I_R=100\mu\text{A}$	85		
Junction Capacitance	C_j	pF	$V_R=0\text{V}$, $f=1\text{MHz}$			4
Reverse Recovery Time	t_{rr}	μs	$I_F=I_R=10\text{mA}$, $I_{rr}=0.1I_R$, $R_L=100\Omega$			3

■ Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BAV199Q	F2	Approximate 0.010	3000	30000	120000	7" reel

■ Characteristics (Typical)

Fig.1 - Forward Characteristics

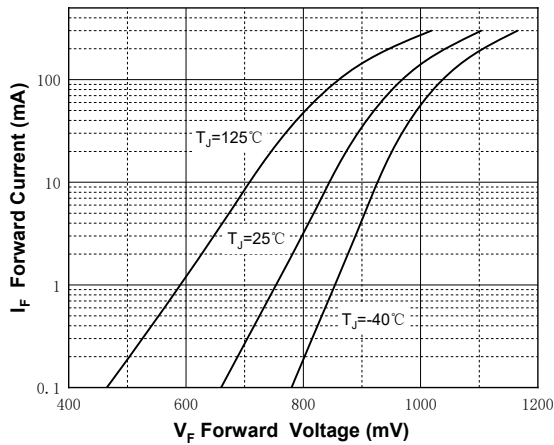


Fig.2 - Reverse Characteristics

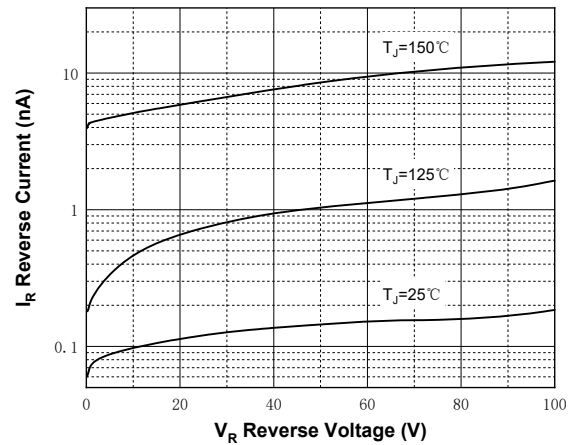
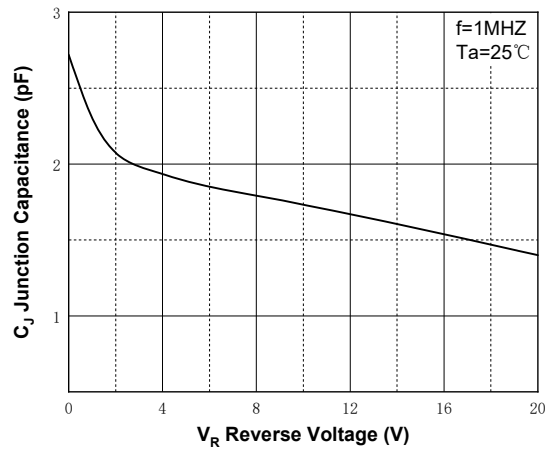
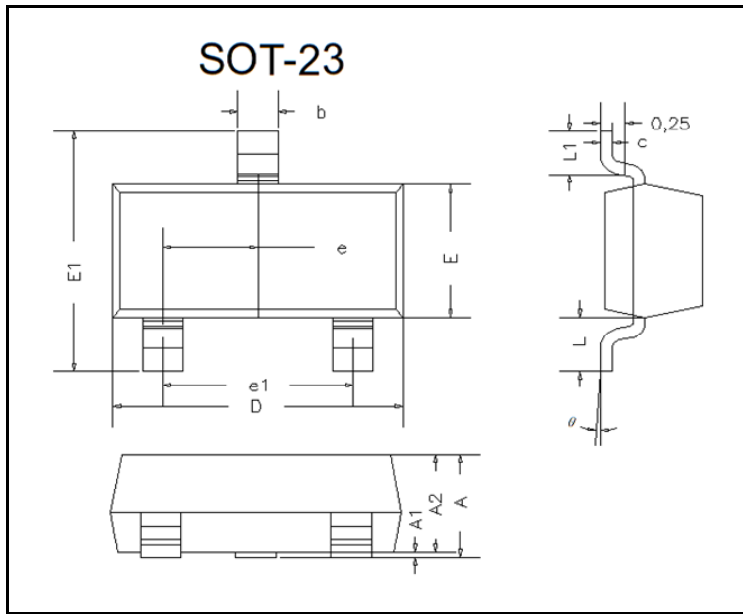


Fig.3 - Junction Capacitance

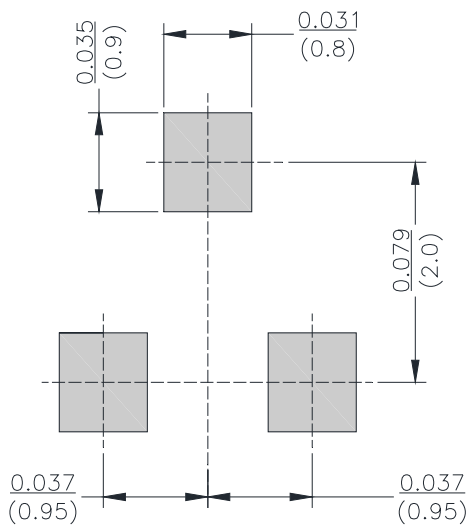


■ Outline Dimensions



DIM	INCHES		MM	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.90	1.15
A1	0.000	0.004	0.00	0.10
A2	0.035	0.041	0.90	1.05
b	0.012	0.020	0.30	0.50
c	0.004	0.008	0.10	0.20
D	0.110	0.118	2.80	3.00
E	0.047	0.055	1.20	1.40
E1	0.089	0.100	2.25	2.55
e	0.370TYP.		0.95TYP.	
e1	0.071	0.079	1.80	2.00
L	0.220REF.		0.55REF.	
L1	0.012	0.020	0.30	0.50
θ	0°	8°	0°	8°

■ Soldering Footprint



Unit: $\frac{\text{inch}}{\text{mm}}$



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with automotive electronics, are not designed for use in medical, life-saving, lifesustaining, or military. Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.