

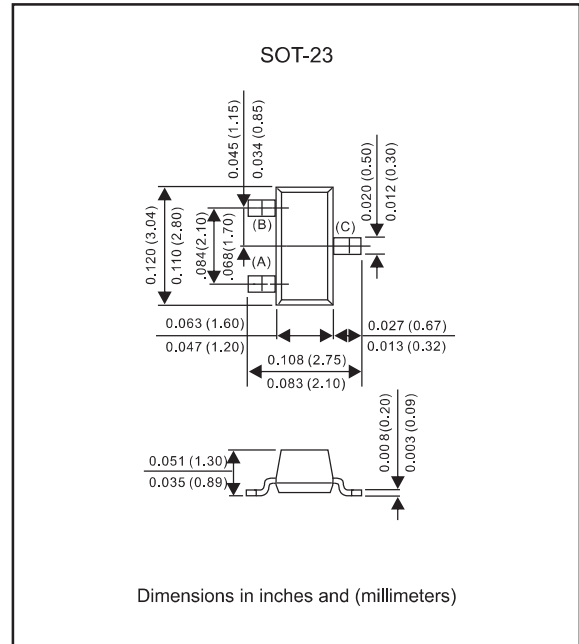
Features

- Fast speed switching.
- For general purpose switching application.
- High conductance.
- Silicon epitaxial planar chip.
- Lead-free parts meet RoHS requirements.
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : Molded plastic, SOT-23
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Mounting Position : Any

Package outline



Maximum ratings and Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Reverse Breakdown Voltage	V_{BR}	V		70
Average Forward Current	$I_{FAV}^{[1]}$	mA		215
Non-Repetitive Peak Forward Surge Current	I_{FSM}	A	$t_p=1\ \mu\text{s}$	4
Power Dissipation	P_D	mW		200
Maximum Junction Temperature	T_j	$^{\circ}\text{C}$		-55 to +150
Storage Temperature Range	T_{stg}	$^{\circ}\text{C}$		-55 to +150

[1] Single diode loaded

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	$I_R=100\mu\text{A}$	70		
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

Rating and characteristic curves

Fig.1 - Forward Characteristics

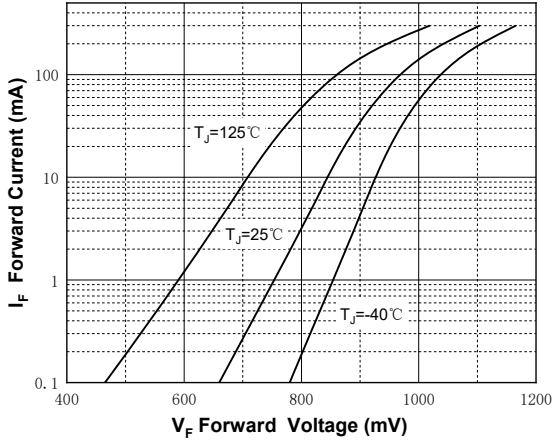


Fig.2 - Reverse Characteristics

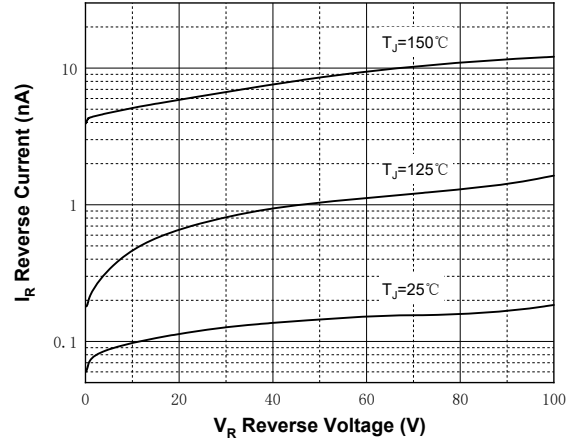
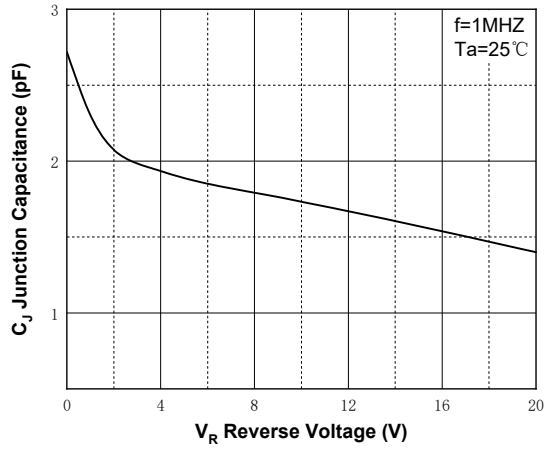
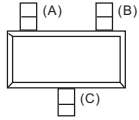
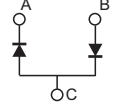


Fig.3 - Junction Capacitance

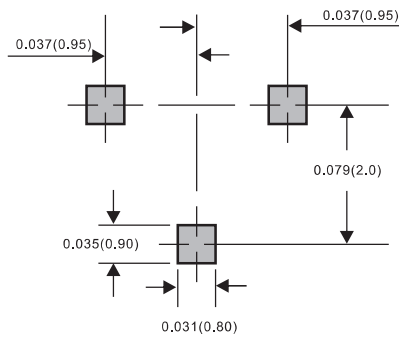


Pinning information

Type number	Marking code	Simplified outline	Symbol
BAV199-Q1	JY		

Suggested solder pad layout

SOT-23



Dimensions in inches and (millimeters)