

Features

- Low reverse current and low forward voltage
- High reliability
- Small surface mounting type
- RoHS compliant with Halogen-free

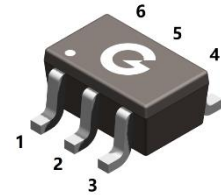
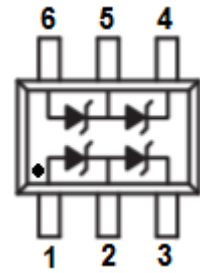
HF

Typical Applications

- High volume commercial detectors, mixers, switches, and digital pulse forming systems
- Low current rectification

Mechanical Data

- SOT-363
- Molding Compound: UL Flammability Classification Rating 94V-0
- Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



SOT-363

Ordering Information

Part Number	Package	Shipping Quantity	Marking Code
BL3923C	SOT-363	3000 pcs / Tape & Reel	3923C

Maximum Ratings (@ T_A = 25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	70	V
DC Blocking Voltage	V _{DC}	70	V
Maximum Average Forward Output Current	I _{F(AV)}	50	mA
Peak Forward Surge Current (8.3ms single half sine-wave)	I _{FSM}	0.1	A

Thermal Characteristics

Parameter	Symbol	Value	Unit
Power Dissipation	P _D	100	mW
Thermal Resistance (Junction-to-Ambient) *1	R _{θJA}	625	°C/W
Operating junction Temperature	T _J	-40 ~ +125	°C
Storage Temperature Range	T _{STG}	-40 ~ +150	°C

Electrical Characteristics (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Forward Voltage *2	V_F	$I_F = 1\text{mA}$	-	-	0.4	V
Pair Configuration *2	ΔV_F	$I_F = 1\text{mA}$	-	-	10	mV
Maximum Peak Reverse Current *3	I_R	$V_R = 50\text{V}$	-	-	0.2	μA
Capacitance Between Terminals	C_J	$V_R = 0\text{V}, f = 1\text{MHz}$	-	1.75	-	pF

Notes:

1. Part mounted on FR-4 board with recommended pad layout
2. Pulse width $\leq 380\ \mu\text{s}$, Duty cycle $< 2\%$
3. pulse test , $t_p \leq 5\text{ms}$

Ratings and Characteristic Curves (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

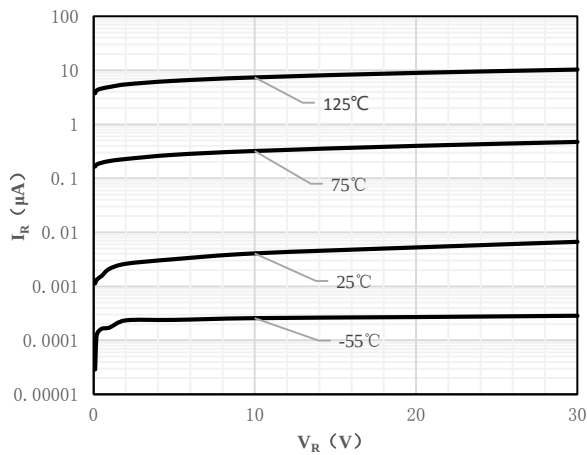


Fig 1 Typical Reverse Characteristic

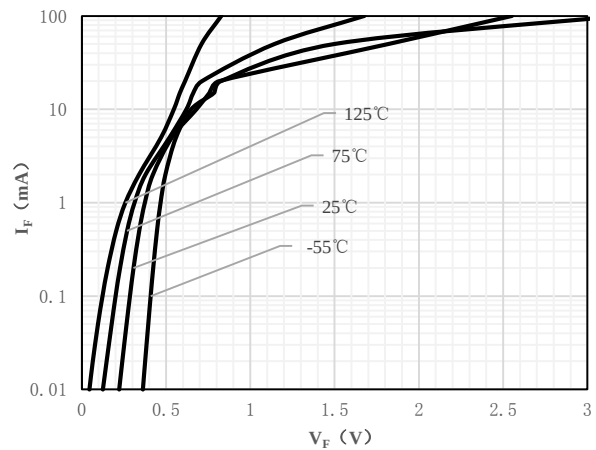


Fig 2 Typical Forward Characteristics

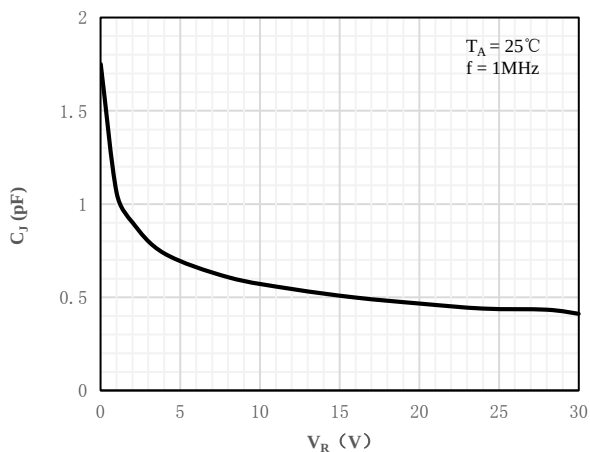


Fig 3 Capacitance vs. Reverse Voltage

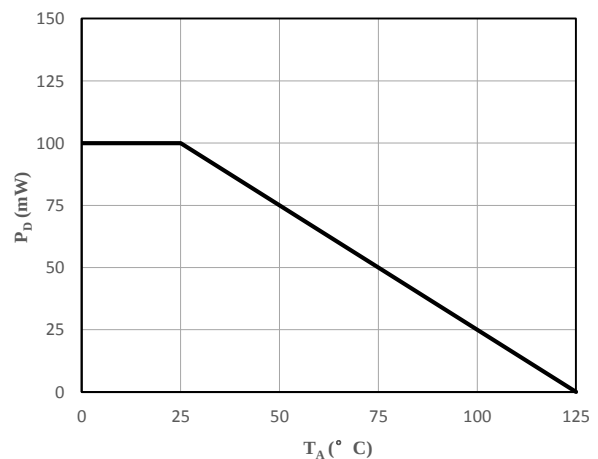
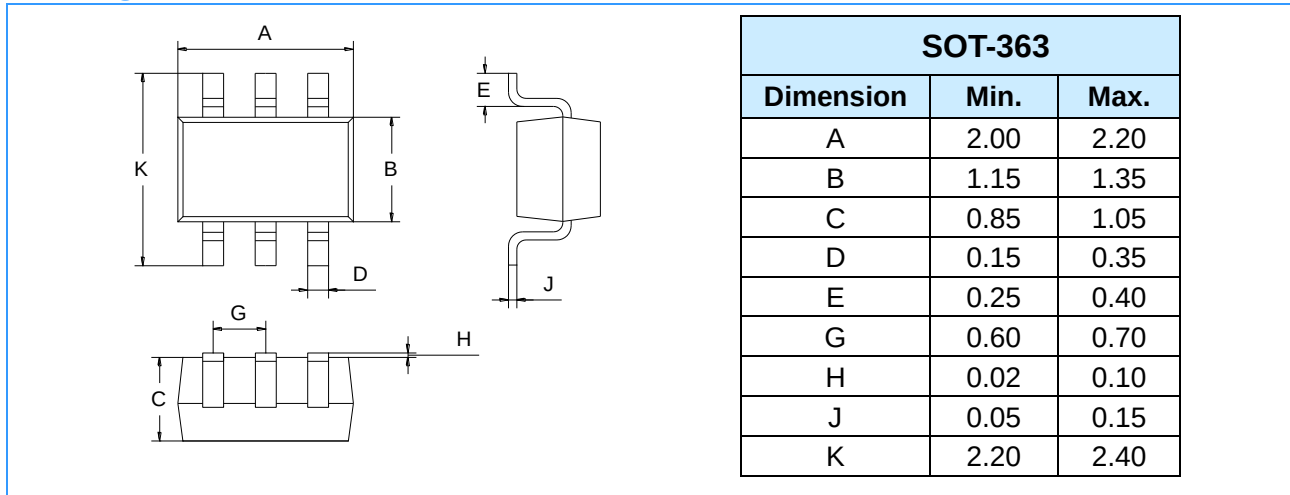


Fig 4 Power Derating Curve

Package Outline Dimensions (Unit: mm)



Package Outline Dimensions (Unit: mm)

