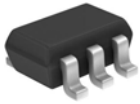


Small Signal Diode

Features

- ↪ Fast Switching Speed
- ↪ High Reverse Breakdown Voltage Rating
- ↪ Moisture sensitivity level 1
- ↪ Matte Tin(Sn) lead finish with Nickel(Ni) underplate
- ↪ Pb free version and RoHS compliant
- ↪ Green compound (Halogen free) with suffix "G" on packing code and prefix "G" on date code

Mechanical Data

- ↪ Case : SOT-363 small outline plastic package
- ↪ Terminal: Matte tin plated, lead free, solderable per MIL-STD-202, Method 208 guaranteed
- ↪ High temperature soldering guaranteed: 260°C/10s
- ↪ Case material-UL Flammability Rating 94V-0
- ↪ Weight : 0.008 gram(approx.)
- ↪ Marking Code : K1

Ordering Information

Part No.	Package	Packing Code	Packing	Marking
SOT-363	BAV99S	3K / 7" Reel	RF	K1
SOT-363	BAV99S	3K / 7" Reel	RFG	K1

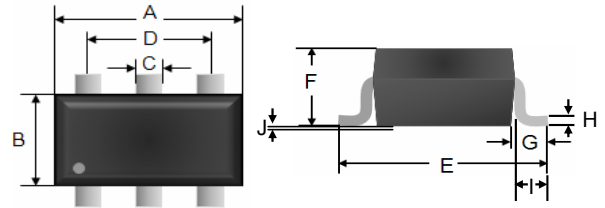
Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

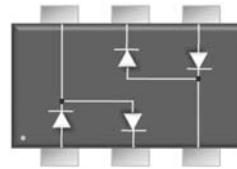
Maximum Ratings

Type Number	Symbol	Value	Units
Power Dissipation	P_D	250	mW
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Repetitive Peak Forward Current	I_{FRM}	450	mA
Mean Forward Current	I_o	200	mA
Non-Repetitive Peak Forward Surge Current(Note1)	I_{FSM}	4.5	A
		0.5	
Junction and Storage Temperature Range	T_J, T_{STG}	-65 to + 150	°C

Notes:1. Pulse Width=1μ sec & 1 sec

SOT-363


Dimensions	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.80	2.00	0.071	0.079
B	1.15	1.35	0.045	0.053
C	0.15	0.30	0.006	0.012
D	1.30 BSC		0.051 BSC	
E	2.10 BSC		0.083 BSC	
F	-	1.10	-	0.043
G	0.42		0.017	
H	0.1 BSC		0.004 BSC	
I	0.25	0.40	0.010	0.016
J	0.02	0.10	0.001	0.004

Pin Configuration


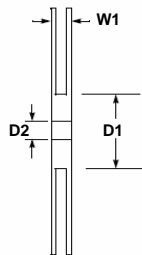
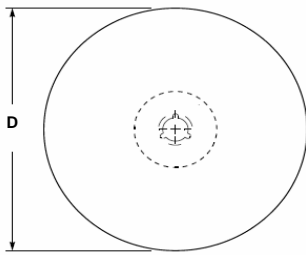
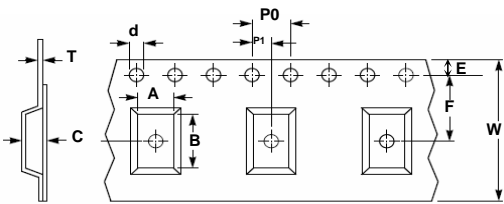
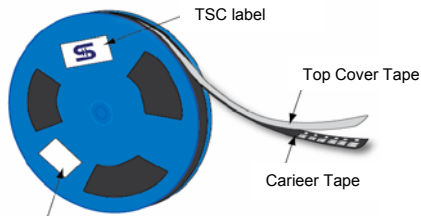
Small Signal Diode

Electrical Characteristics

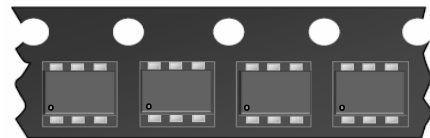
Type Number		Symbol	Min	Max	Units
Reverse Breakdown Voltage	$I_R = 2.5\mu A$	$V_{(BR)}$	75	-	V
Forward Voltage	$I_F = 1.0mA$	V_F	-	0.715	V
	$I_F = 10mA$		-	0.855	
	$I_F = 50mA$		-	1.000	
	$I_F = 100mA$		-	1.200	
	$I_F = 150mA$		-	1.250	
Reverse Leakage Current	$V_R = 75mA$	I_R	-	1	μA
Junction Capacitance	$V_R = 0, f = 1.0MHz$	C_J	-	1.5	pF
Reverse Recovery Time (Note 2)		T_{rr}	-	4	ns

Notes:2. Reverse Recovery Test Conditions: $I = I = 10mA, R = 100\Omega$

Tape & Reel specification



Item	Symbol	Dimension (mm)
Carrier width	A	3.15 ± 0.10
Carrier length	B	2.77 ± 0.10
Carrier depth	C	1.22 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178 ± 1
Reel inner diameter	D1	55 Min
Feed hole width	D2	13.0 ± 0.20
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.05
Sprocket hole pitch	P0	4.00 ± 0.10
Embossment center	P1	2.00 ± 0.05
Overall tape thickness	T	0.229 ± 0.013
Tape width	W	8.10 ± 0.20
Reel width	W1	12.30 ± 0.20



Direction of Feed

Small Signal Diode

Rating and Sharacteristic Curves

FIG 1 Typical Forward Characteristics

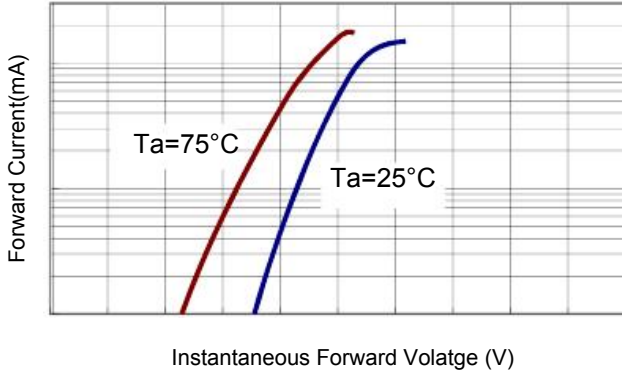


FIG 2 Reverse Current vs Reverse Voltage

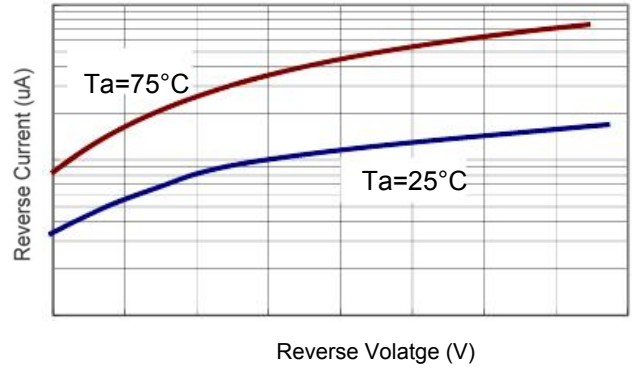


FIG 3 Admissible Power Dissipation Curve

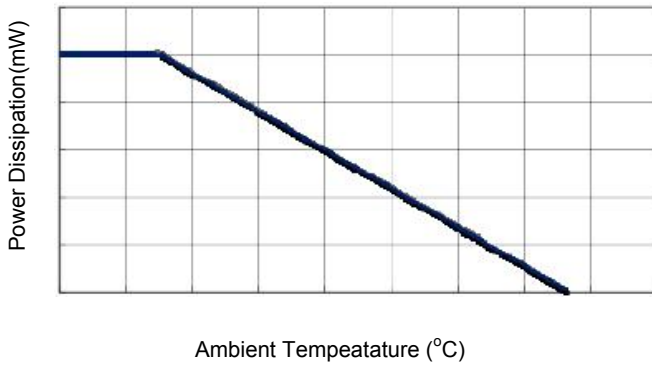


FIG 4 Typical Junction Capacitance

