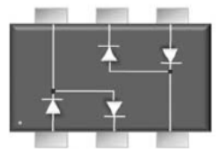
250mW High Speed Switching Array

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
- Packing code with suffix "G" means green compound (halogen-free)

SOT-363



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: 8 ± 0.5 mg
- Marking Code: K1

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P_D	200	mW
Repetitive Peak Reverse Voltage	V_{RRM}	85	V
Repetitive Peak Forward Current	I_{FRM}	450	mA
Mean Forward Current	I_O	150	mA
Non-Repetitive Peak Forward Surge Current — Pulse width = 1 μs	I_{FSM}	4.5	A
Non-Repetitive Peak Forward Surge Current — Pulse width = 1 s	I_{FSM}	0.5	A
Junction and Storage Temperature Range	T_J , T_{STG}	-55 to 150	°C

PARAMETER		SYMBOL	MIN	MAX	UNIT
Reverse Breakdown Voltage	I_R=2.5μA	$V_{(BR)}$	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=75V	I_R	-	1.000	μA
Junction Capacitance	V_R=0, f=1.0MHz	C_J	-	1.500	pF
Reverse Recovery Time	(Note 1)	t_{rr}	-	6.000	ns

Note 1 : Reverse recovery test conditions : I_F=I_R=10mA, R_L=100Ω

Small Signal Product

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

Fig. 1 Maximum Permissible Continuous Forward Current As A Function of Soldering Point Temperature

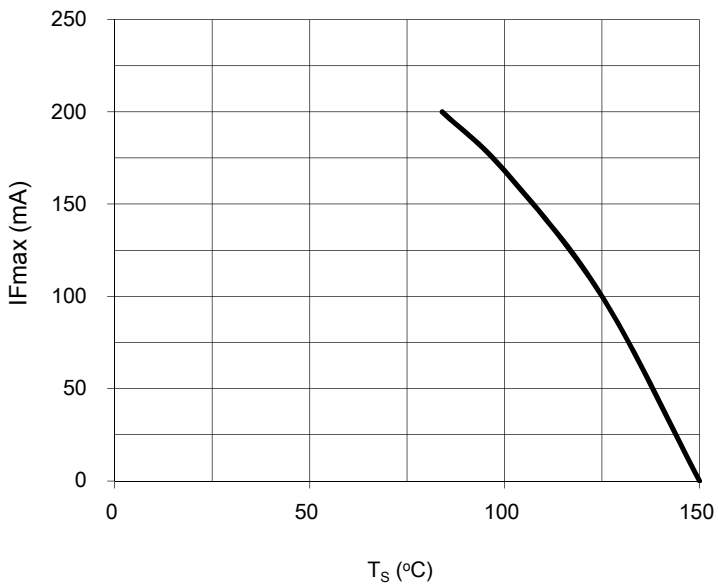
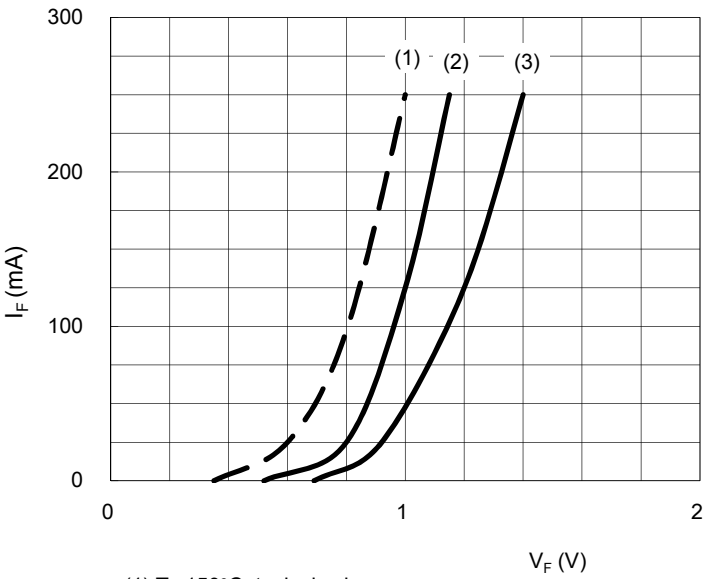
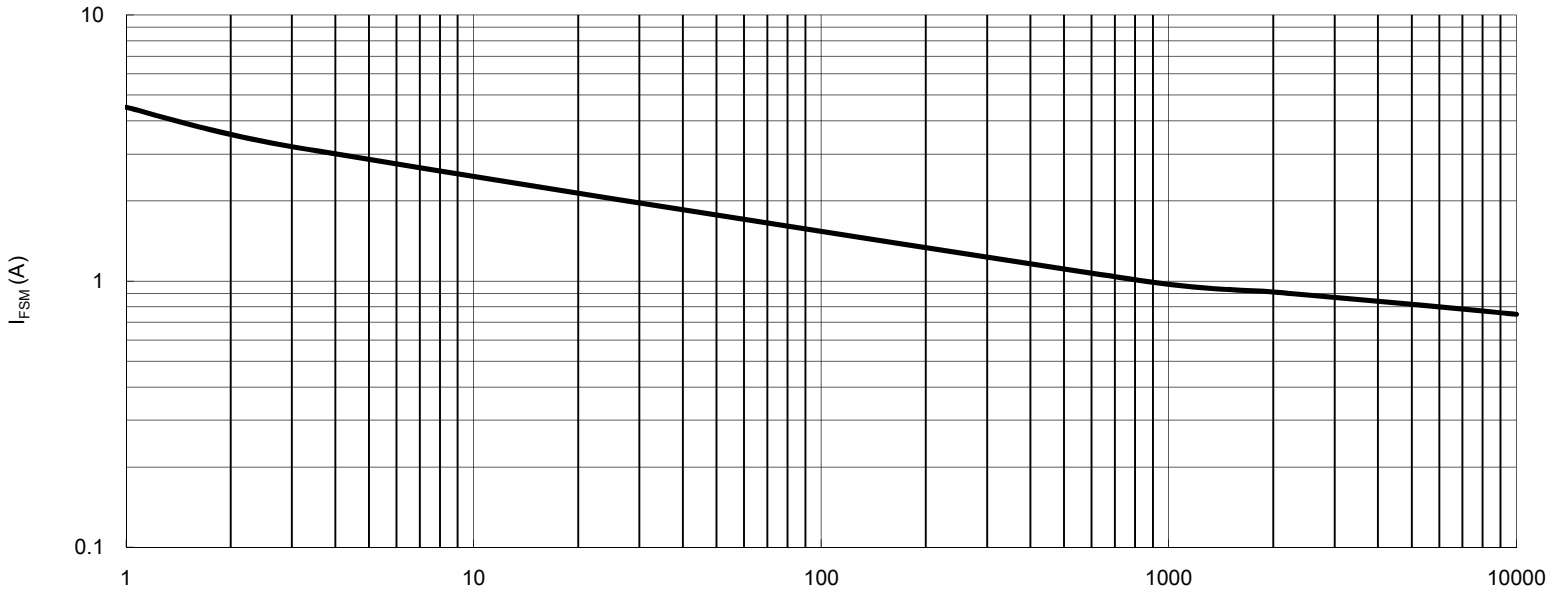


Fig. 2 Forward Current As A Function of Forward Voltage



(1) T_j=150ºC; typical values.
(2) Tj=25ºC ; typical values.
(3) Tj=25ºC; maximum

Fig. 3 Maximum Permissible Non-Repetitive Peak Forward Current As A Function of Pulse Duration



Based on square wave currents
T_j=25ºC prior to surge

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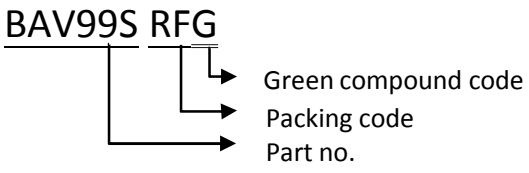
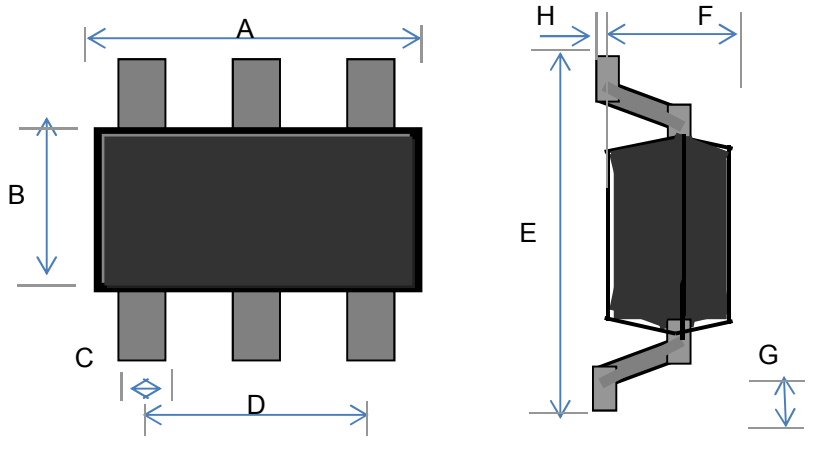
ORDER INFORMATION (EXAMPLE)



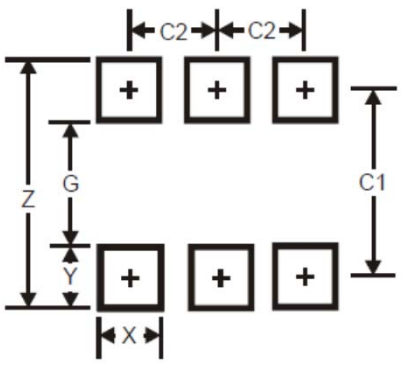
DIMENSIONS

SOT-363



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.00	2.20	0.079	0.087
B	1.15	1.35	0.045	0.053
C	0.15	0.35	0.006	0.014
D	1.20	1.40	0.047	0.055
E	2.15	2.45	0.085	0.096
F	0.85	1.05	0.033	0.041
G	0.25	0.46	0.010	0.018
H	0.00	0.10	0.000	0.004

SUGGESTED PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
Z	3.20	0.126
G	1.60	0.063
X	0.55	0.022
Y	0.80	0.031
C1	2.40	0.094
C2	0.95	0.037

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