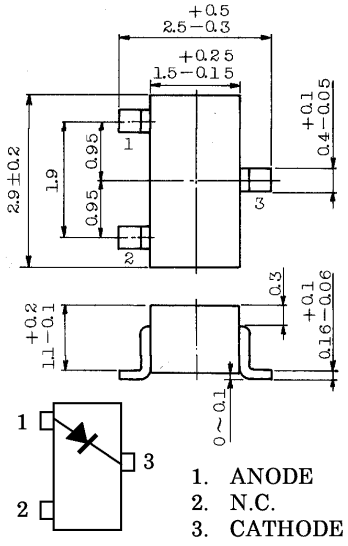
TOSHIBA DIODE SILICON EPITAXIAL PIN TYPE

1SV128

VHF~UHF BAND RF ATTENUATOR APPLICATIONS.

Unit in mm

- Small Package
- Small Total Capcitance : $C_T = 0.25pF$ (Typ.)



JEDEC	—
EIAJ	SC-59
TOSHIBA	1-3G1B

Weight : 0.012g

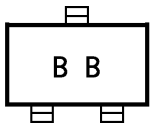
MAXIMUM RATINGS (Ta = 25°C)

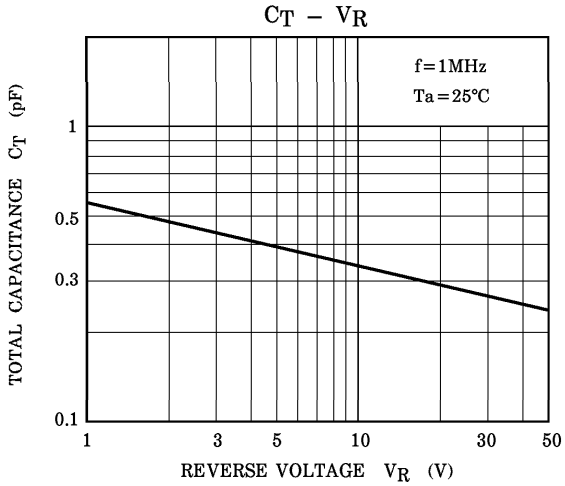
CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	50	V
Forward Current	I_F	50	mA
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55~125	°C

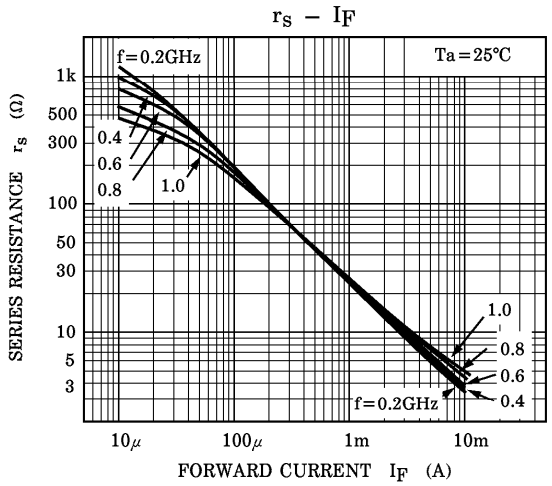
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	V_R	$I_R = 10\mu A$	50	—	—	V
Reverse Current	I_R	$V_R = 50V$	—	—	0.1	μA
Forward Voltage	V_F	$I_F = 50mA$	—	0.95	—	V
Total Capacitance	C_T	$V_R = 50V$, f = 1MHz	—	0.25	—	pF
Series Resistance	r_s	$I_F = 10mA$, f = 100MHz	—	3	—	Ω
Minority Carrier Life Time	τ	$I_F = 10mA$. $I_R = 6mA$	—	400	—	ns

Marking




$C_T - V_R$
f=1MHz
Ta=25°C
TOTAL CAPACITANCE C_T (pF)
1
0.5
0.3
0.1
1
3
5
10
30
50
REVERSE VOLTAGE V_R (V)


$r_S - I_F$
f=0.2GHz
Ta=25°C
SERIES RESISTANCE r_S (Ω)
1k
500
300
100
50
30
10
5
3
0.4
0.6
0.8
1.0
1.0
0.8
0.6
0.4
f=0.2GHz
10μ
100μ
1m
10m
FORWARD CURRENT I_F (A)

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000707EAA

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