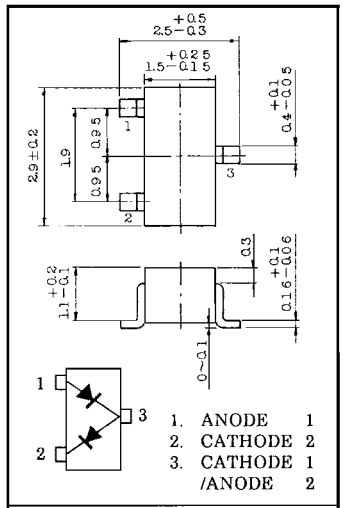
SILICON EPITAXIAL SCHOTTKY BARRIER TYPE

1SS271

VHF~UHF MIXER APPLICATION

- Small Package
- Small Delta Forward Voltage : $\Delta V_F = 10mV$ (Max.)
- Small Delta Total Capacitance : $\Delta C_T = 0.1pF$ (Max.)

Unit in mm



JEDEC	—
EIAJ	SC-59
TOSHIBA	1-3G1G

Weight : 0.013g

MAXIMUM RATINGS (Ta = 25°C)

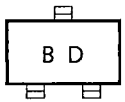
CHARACTERISTIC	SYMBOL	RATING	UNIT
Reverse Voltage	V_R	6	V
Forward Current	I_F	30	mA
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_{stg}	−55~125	°C

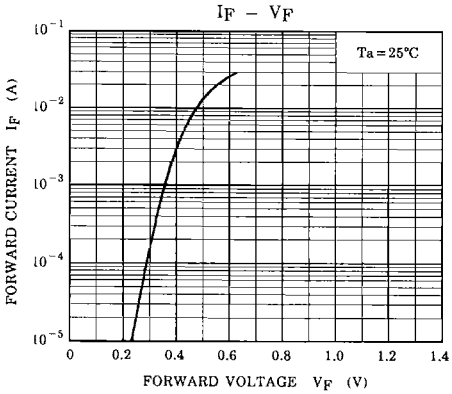
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

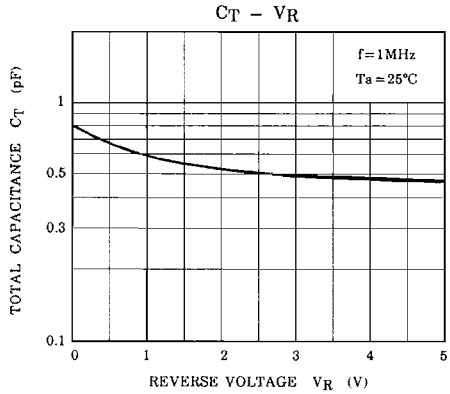
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Reverse Voltage	V_R	$I_R = 10\mu A$	6	—	—	V
Reverse Current	I_R	$V_R = 5V$	—	—	0.5	μA
Forward Voltage	V_F (1)	$I_F = 0.1mA$	—	0.3	—	V
Forward Voltage	V_F (2)	$I_F = 10mA$	0.42	0.5	0.55	V
Total Capacitance	C_T	$V_R = 0V$, f = 1MHz	—	0.8	1.0	pF
Delta Forward Voltage	ΔV_F	$I_F = 10mA$ (Note)	—	—	10	mV
Delta Total Capacitance	ΔC_T	$V_R = 0V$, f = 1MHz (Note)	—	—	0.1	pF

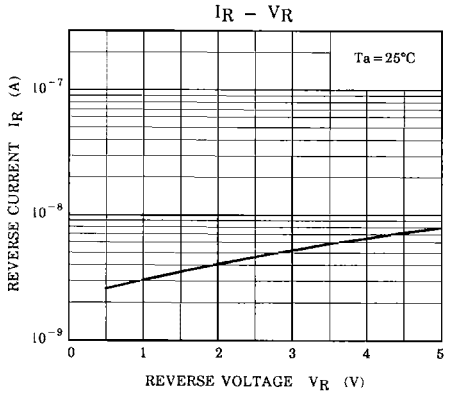
(Note) : Difference between 2 Devices in 1 Package.

Marking




IF – VF
Ta = 25°C
FORWARD CURRENT IF (A)
10⁻¹
10⁻²
10⁻³
10⁻⁴
10⁻⁵
0
0.2
0.4
0.6
0.8
1.0
1.2
1.4
FORWARD VOLTAGE VF (V)


CT – VR
f = 1MHz
Ta = 25°C
TOTAL CAPACITANCE CT (pF)
1
0.5
0.3
0.1
0
1
2
3
4
5
REVERSE VOLTAGE VR (V)


IR – VR
Ta = 25°C
REVERSE CURRENT IR (A)
10⁻⁷
10⁻⁸
10⁻⁹
0
1
2
3
4
5
REVERSE VOLTAGE VR (V)