

TENTATIVE

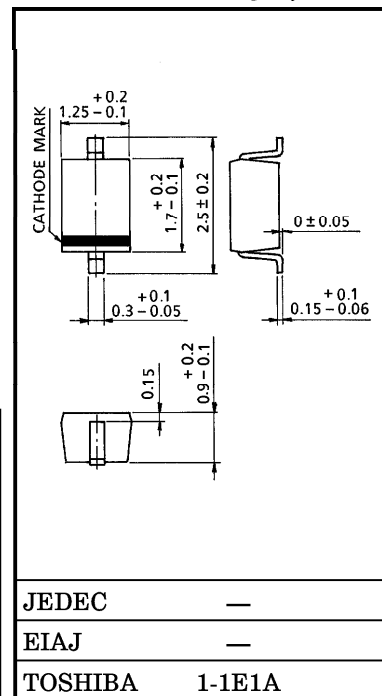
TOSHIBA DIODE SILICON EPITAXIAL PLANAR TYPE

# 1SS403

HIGH VOLTAGE SWITCHING APPLICATIONS

Unit in mm

- Two-pin small packages are suitable for higher mounting densities.
- Excellent in Forward Current and Forward Voltage Characteristics :  $V_F(2) = 0.90\text{ V (Typ.)}$
- Fast Reverse Recovery Time :  $t_{rr} = 60\text{ ns (Typ.)}$
- Small Total Capacitance :  $C_T = 1.5\text{ pF (Typ.)}$



MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	$V_{RM}$	250	V
Reverse Voltage	$V_R$	200	V
Maximum (Peak) Forward Current	$I_{FM}$	300	mA
Average Forward Current	$I_O$	100	mA
Surge Current (10ms)	$I_{FSM}$	2	A
Power Dissipation	P	200 (*)	mW
Junction Temperature	$T_j$	125	°C
Storage Temperature Range	$T_{stg}$	-55~125	°C

(\*) When mounted on a glass epoxy board PCB : 20 mm × 20 mm, with copper pad 4 mm × 4 mm.

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_F(1)$	$I_F = 10\text{ mA}$	—	0.72	1.0	V
	$V_F(2)$	$I_F = 100\text{ mA}$	—	0.90	1.2	
Reverse Current	$I_R(1)$	$V_R = 50\text{ V}$	—	—	0.1	$\mu\text{A}$
	$I_R(2)$	$V_R = 200\text{ V}$	—	—	1.0	
Total Capacitance	$C_T$	$V_R = 0, f = 1\text{ MHz}$	—	1.5	3.0	pF
Reverse Recovery Time	$t_{rr}$	$I_F = 10\text{ mA}$ (Fig.1)	—	10	60	ns

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Fig1. REVERSE RECOVERY TIME ( $t_{rr}$ ) TEST CIRCUIT

