

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 ($T_a = 25^\circ\text{C}$)

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	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-55 \sim 125$	$^\circ\text{C}$

JEDEC	—
EIAJ	—
TOSHIBA	1-1E1A

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

ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

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	μA
	$I_R(2)$	$V_R = 200 \text{ V}$	—	—	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

