

9097250 TOSHIBA (DISCRETE/OPTO)

67C 09293

DT-03-09

1N4446~1N4449

Silicon Epitaxial Planar Type

Diode

TENTATIVE

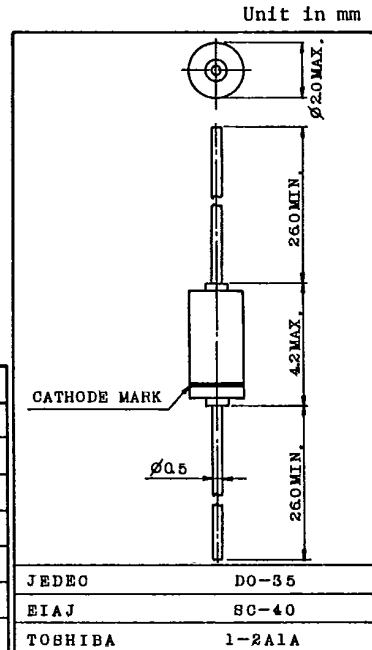
COMMUNICATION AND INDUSTRIAL APPLICATIONS.
HIGH VOLTAGE, ULTRA HIGH SPEED SWITCHING APPLICATIONS.

FEATURES:

- Low Forward Voltage : $V_F=1.0V$ (Max.)
- Small Total Capacitance : $C_T=4pF$ (Max.)
- Fast Reverse Recovery Time : $t_{rr}=4ns$ (Max.)
- Hermetically Sealed Miniature Glass Package.

MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Maximum (Peak) Forward Current	I_{FM}	450	mA
Average Forward Current	I_O	150	mA
Surge Current (1 μs)	I_{FSM}	2	A
Power Dissipation	P	500	mW
Junction Temperature	T_j	200	$^\circ C$
Storage Temperature Range	T_{stg}	-65 ~ 200	$^\circ C$

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	1N4446/7	$V_F(1)$ $I_F=20mA$	-	0.79	1.0	V
	1N4448	$V_F(2)$ $I_F=5mA$	0.62	0.67	0.72	V
		$V_F(3)$ $I_F=100mA$	-	0.9	1.0	V
	1N4449	$V_F(4)$ $I_F=5mA$	0.63	0.68	0.73	V
		$V_F(5)$ $I_F=30mA$	-	0.8	1.0	V
Reverse Current	$I_R(1)$	$V_R=20V$	-	-	25	nA
	$I_R(2)$	$V_R=20V, T_a=150^\circ C$	-	-	50	μA
	$I_R(3)$	$V_R=75V$	-	-	5	μA
Total Capacitance	1N4446/8	$C_T(1)$ $V_R=0, f=1MHz$	-	1.5	4	pF
	1N4447/9	$C_T(2)$ $V_R=0, f=1MHz$	-	1.5	2	pF
Reverse Recovery Time	t_{rr}	$I_F=10mA, V_R=6V, R_L=100\Omega, I_{rr}=1mA$	-	-	4	ns

TOSHIBA CORPORATION