

9097250 TOSHIBA (DISCRETE/OPTO)

67C 09287

D. T-03-09

1N4148

Silicon Epitaxial Planar Type

Diode

HIGH VOLTAGE, ULTRA HIGH SPEED SWITCHING APPLICATIONS.

FEATURES:

- . Low Forward Voltage : $V_F=1.2V$ (Max.)
- . Small Total Capacitance : $C_T=3pF$ (Max.)
- . Fast Reverse Recovery Time : $t_{rr}=4ns$ (Max.)
- . Hermetically Sealed Miniature Glass Package.

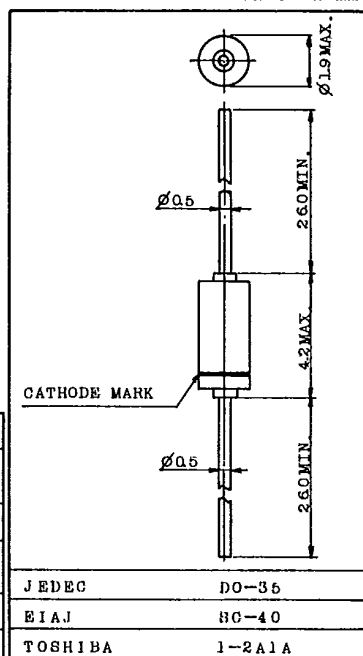
MAXIMUM RATINGS ($T_a=25^\circ C$)

CHARACTERISTIC	SYMBOL	RATING	UNIT
Maximum (Peak) Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Maximum (Peak) Forward Current	I_{FM}	500	mA
Average Forward Current	I_O	200	mA
Surge Current (1 sec)	I_{FSM}	700	mA
Power Dissipation	P	500	mW
Junction Temperature	T_j	175	$^\circ C$
Storage Temperature Range	T_{stg}	-65 ~ 175	$^\circ C$

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

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Forward Voltage	$V_F(1)$	$I_F=10mA$	-	0.75	1.0	V
	$V_F(2)$	$I_F=100mA$	-	0.95	1.2	V
Reverse Current	$I_R(1)$	$V_R=20V$	-	-	25	nA
	$I_R(2)$	$V_R=75V$	-	-	0.1	μA
Total Capacitance	C_T	$V_R=0, f=1MHz$	-	1.5	3.0	pF
Reverse Recovery Time	t_{rr}	$V_R=6V, I_F=10mA$ $R_L=100\Omega$ (Fig.)	-	2.0	4.0	ns

Unit in mm



Weight : 0.14g

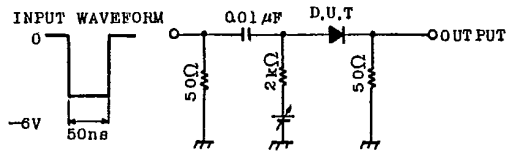
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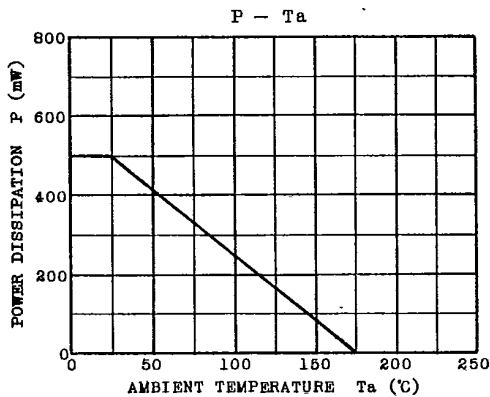
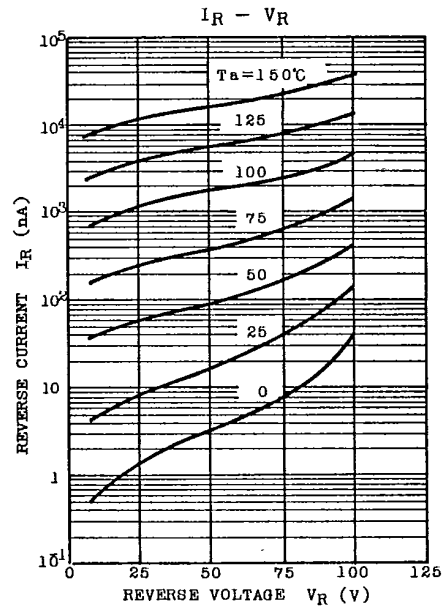
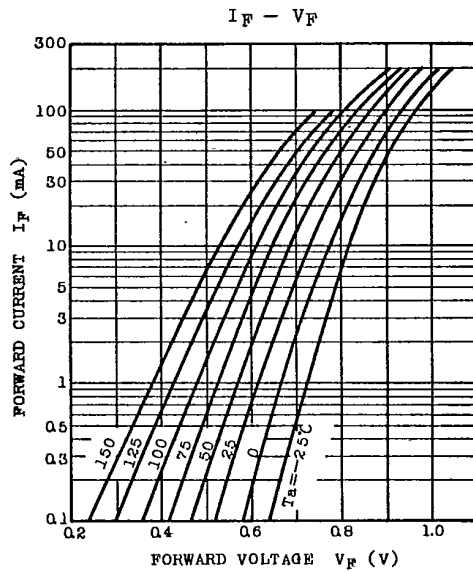
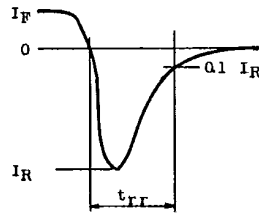
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Fig. t_{rr} TEST CIRCUIT



OUTPUT WAVEFORM



TOSHIBA CORPORATION