

TOSHIBA SCHOTTKY BARRIER RECTIFIER SCHOTTKY BARRIER TYPE

# 1GWJ42

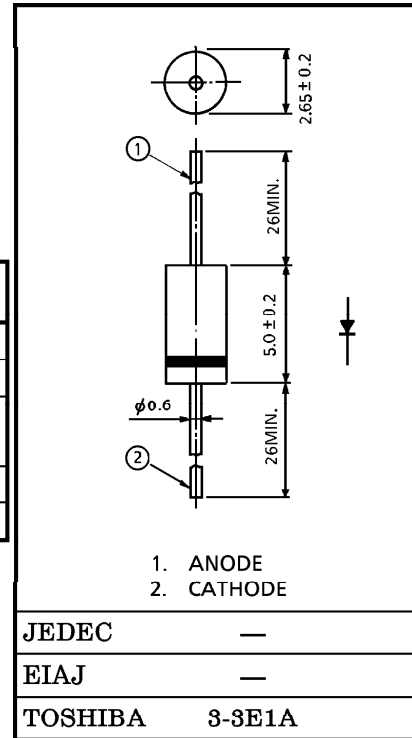
HIGH SPEED RECTIFIER APPLICATIONS

Unit in mm

- Average Forward Current :  $I_F(AV)=1.0A$  ( $T_a=52^\circ C$ )
- Reverse Recovery Time :  $t_{rr}=35ns$  (MAX.)
- Low Forward Voltage :  $V_{FM}=0.55V$  (MAX.)

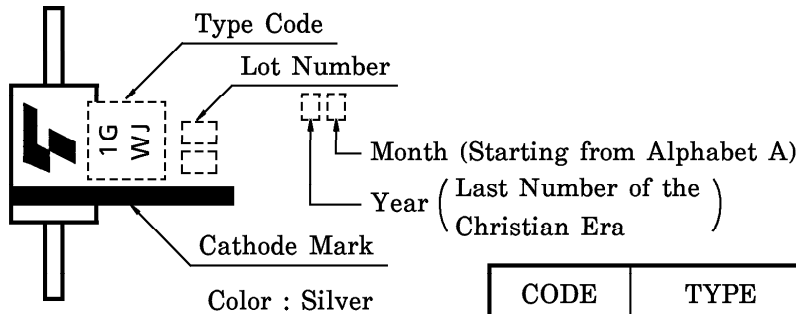
**MAXIMUM RATINGS**

CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	$V_{RRM}$	40	V
Average Forward Current	$I_F(AV)$	1.0	A
Peak One Cycle Surge Forward Current (Non-Repetitive)	$I_{FSM}$	40 (50Hz)	A
Junction Temperature	$T_j$	-40~125	°C
Storage Temperature Range	$T_{stg}$	-40~125	°C



Weight : 0.225g

**MARKING**



CODE	TYPE
1GWJ	1GWJ42

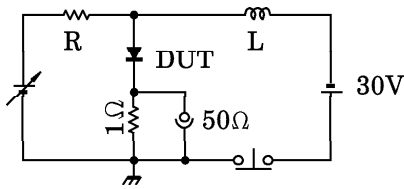
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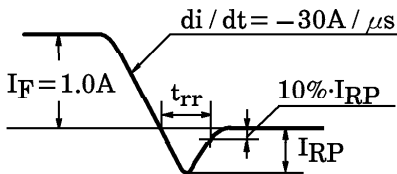
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	$V_{FM}$	$I_{FM} = 1.0A$	—	—	0.55	V
Repetitive Peak Reverse Current	$I_{RRM}$	$V_{RRM} = 40V$	—	—	0.5	mA
Reverse Recovery Time (Note 1)	$t_{rr}$	$I_F = 1.0A, di/dt = -30A/\mu s$	—	—	35	ns
Junction Capacitance	$C_j$	$V_R = 10V, f = 1MHz$	—	52	—	pF
Thermal Resistance (Junction to Ambient)	$R_{th(j-a)}$	DC (Note 2)	—	—	125	°C/W
Thermal Resistance (Junction to Lead)	$R_{th(j-l)}$	DC (Note 2)	—	—	60	°C/W

(Note 1)  $t_{rr}$  TEST CIRCUIT



$t_{rr}$  WAVEFORM



(Note 2) THERMAL RESISTANCE

