

# BYT52MGR

**SINTERED GLASS JUNCTION  
FAST SWITCHING PLASTIC RECTIFIER**  
VOLTAGE: 1000V      CURRENT: 1.4A

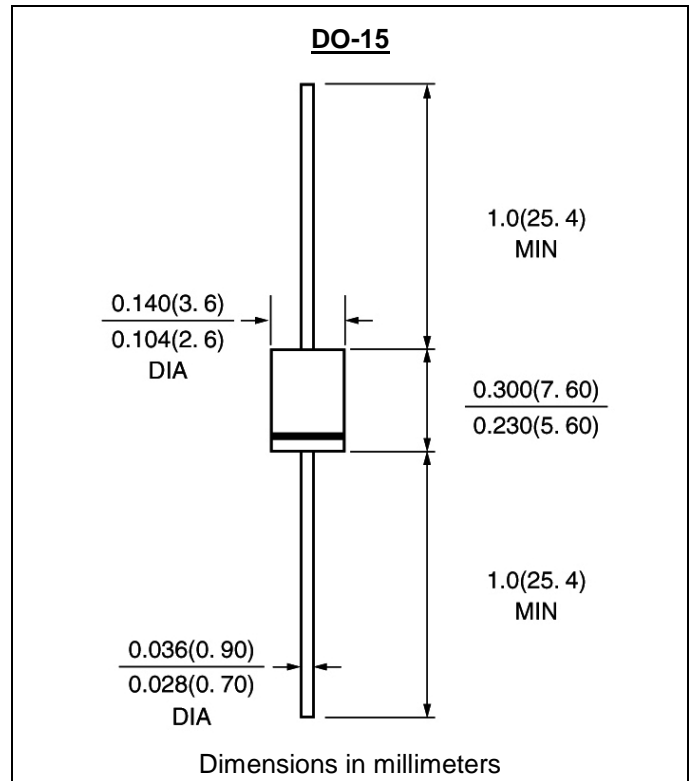


## FEATURE

High temperature metallurgic ally bonded construction  
Sintered glass cavity free junction  
Capability of meeting environmental standard of MIL-S-19500  
High temperature soldering guaranteed  
350°C /10sec/0.375"lead length at 5 lbs tension

## MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy  
Polarity: color band denotes cathode  
Mounting position: any



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

	SYMBOL	BYT52MGR	units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	1000	V
Maximum RMS Voltage	$V_{RMS}$	700	V
Maximum DC blocking Voltage	$V_{DC}$	1000	V
Maximum Average Forward Rectified Current at $I=10\text{mm}$	$I_{FAV}$	1.4	A
Peak Forward Surge Current at $T_p=10\text{ms}$ half sine wave	$I_{FSM}$	50.0	A
Maximum Forward Voltage at Forward Current 1.0A and 25°C	$V_F$	1.30	V
Maximum DC Reverse Current at rated DC blocking voltage	$I_R$	5.0 150	$\mu\text{A}$ $\mu\text{A}$
Maximum Reverse Recovery Time (Note 1)	$T_{rr}$	200	nS
Typical Thermal Resistance (Note 2)	$R_{th}(ja)$	100	K/W
Storage and Operating Junction Temperature	$T_{stg}, T_j$	-55 to +175	°C

Note:

- Reverse Recovery Condition  $I_F=0.5\text{A}$ ,  $I_R=1.0\text{A}$ ,  $I_{RR}=0.25\text{A}$
- on P.C. board with spacing 20mm

## RATINGS AND CHARACTERISTIC CURVES BYT52MGR

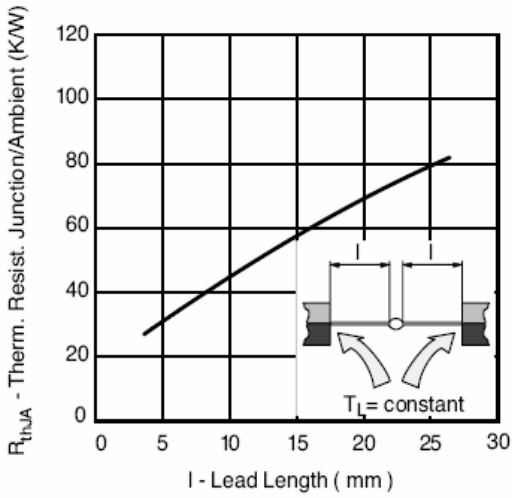


Figure 1. Max. Thermal Resistance vs. Lead Length

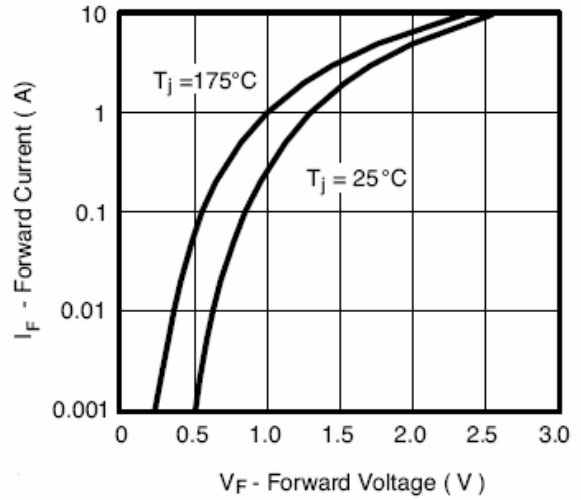


Figure 2. Forward Current vs. Forward Voltage

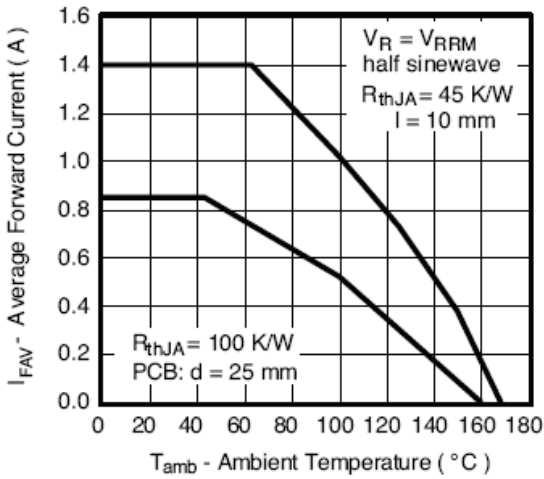


Figure 3. Max. Average Forward Current vs. Ambient Temperature

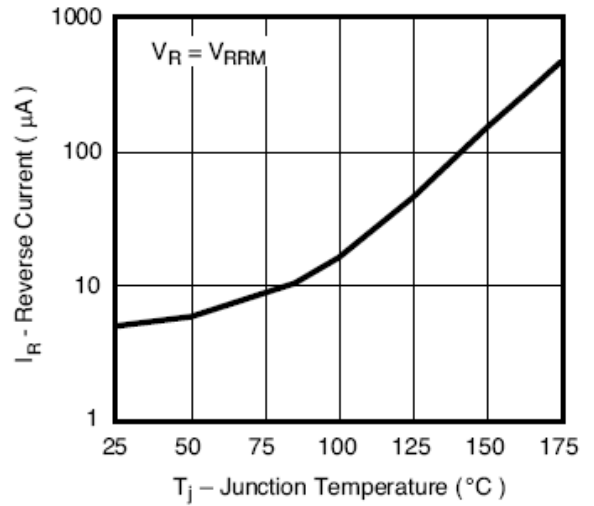


Figure 4. Reverse Current vs. Junction Temperature

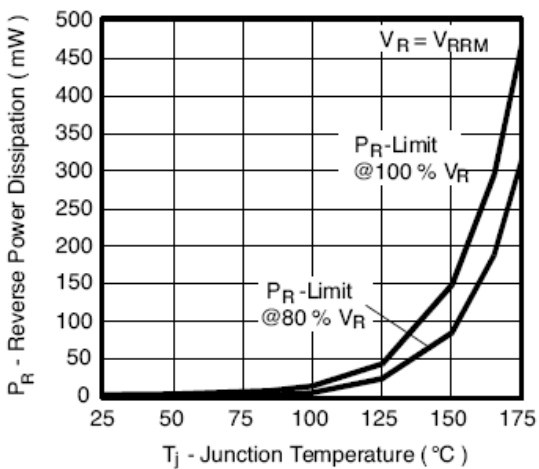


Figure 5. Max. Reverse Power Dissipation vs. Junction Temperature

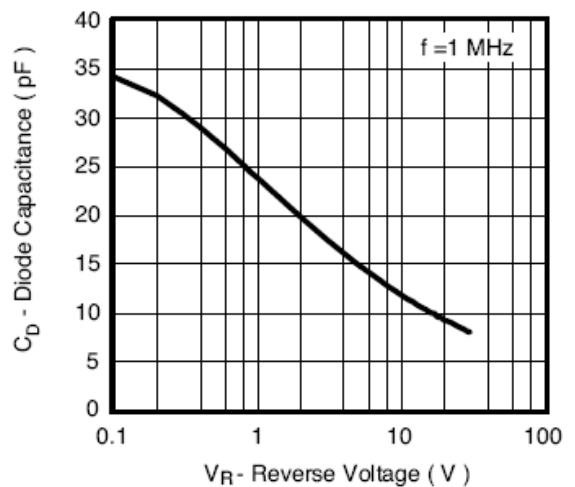


Figure 6. Diode Capacitance vs. Reverse Voltage