

## GB840

### SCHOTTKY BARRIER DIODE VOLTAGE 40V, CURRENT 8A RECTIFIER

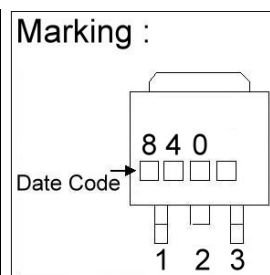
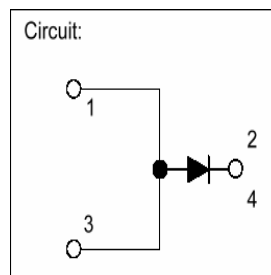
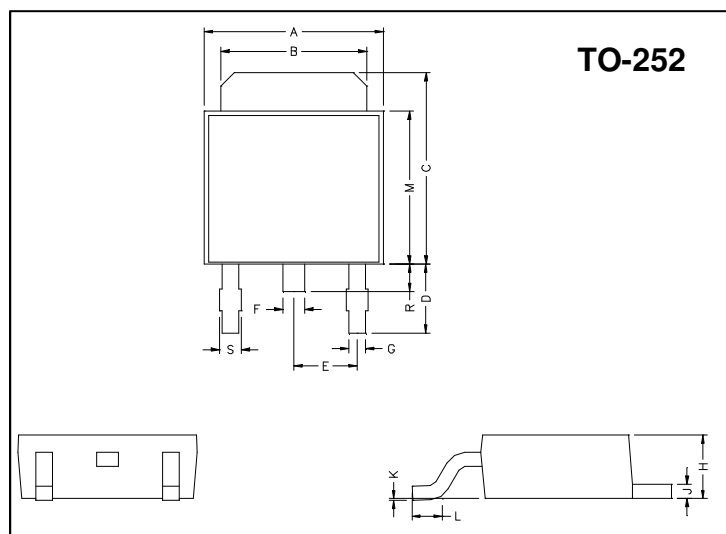
#### Description

The GB840 is designed for switching power supplies, converters, free wheeling and reverse battery protection applications.

#### Features

- \*Low forward voltage drop
- \*High frequency operation

#### Package Dimensions



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	6.40	6.80	G	0.50	0.70
B	5.20	5.50	H	2.20	2.40
C	6.80	7.20	J	0.45	0.55
D	2.20	2.80	K	0	0.15
E	2.30 REF.		L	0.90	1.50
F	0.70	0.90	M	5.40	5.80
S	0.60	0.90	R	0.80	1.20

#### Absolute Maximum Ratings at Ta=25°C

Parameters	Symbol	Ratings	Unit	Condition
DC Reverse Voltage	$V_{R(RMS)}$	40	V	
Working Peak Reverse Voltage	$V_{RWM}$	40	V	
Average Forward Current	$I_F$	8	A	50% duty cycle @ $T_C=119^\circ\text{C}$ , rectangular waveform
Surge Forward Current	$I_{FSM}$	380	A	10ms Sine or 6ms Rect. pulse
Junction Temperature	$T_j$	-55 ~ +150	°C	
Storage Temperature	$T_{stg}$	-55 ~ +175	°C	
Thermal Resistance, Junction to case	$R_{\theta JC}$	5	°C/W	

#### Electrical Characteristics

Parameters	Symbol	Ratings			Unit	Condition
		min	typ	max		
Reverse Voltage	$V_R$	40	-	-	V	$I_R=3\text{mA}$ , $T_j=25^\circ\text{C}$
Forward Voltage*	$V_F$	-	-	0.53	V	$I_F=8\text{A}$ , $T_j=25^\circ\text{C}$
Reverse Current*	$I_R$	-	-	2.0	mA	$V_R=40\text{V}$ , $T_j=25^\circ\text{C}$
Junction Capacitance	$C_T$	-	-	900	pF	$V_R=5\text{V}$ , $T_j=25^\circ\text{C}$ (test signal range 100KHz~1MHz)
Series Inductance	$L_S$	-	10.0	-	nH	Measure lead to lead 5mm from body

Note \*: Pulse Width <300μs, Duty Cycle <2%.

## Characteristics Curve

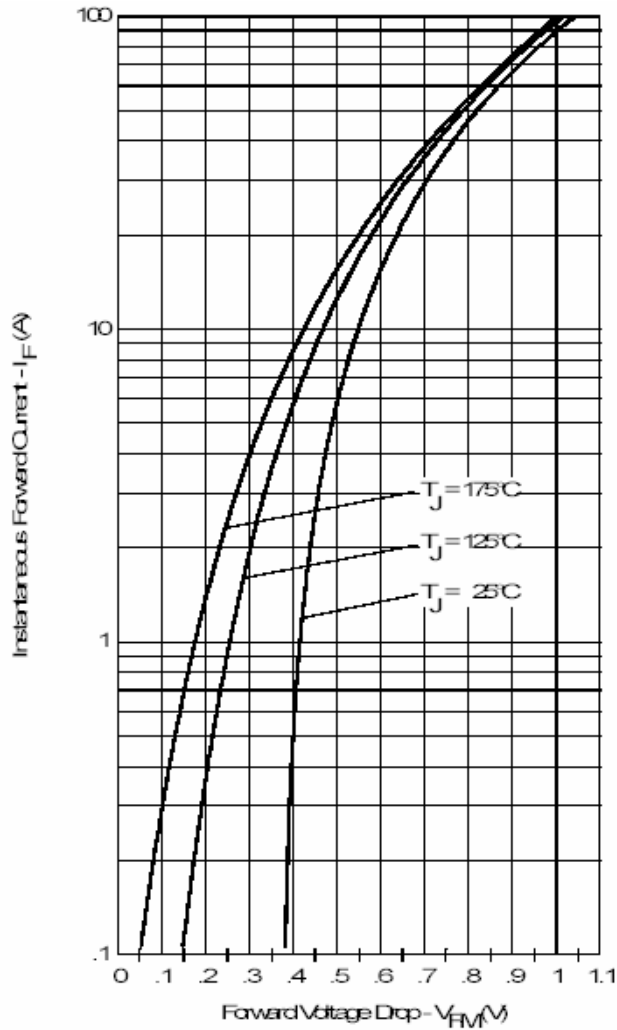


Fig. 1 - Max. Forward Voltage Drop Characteristics

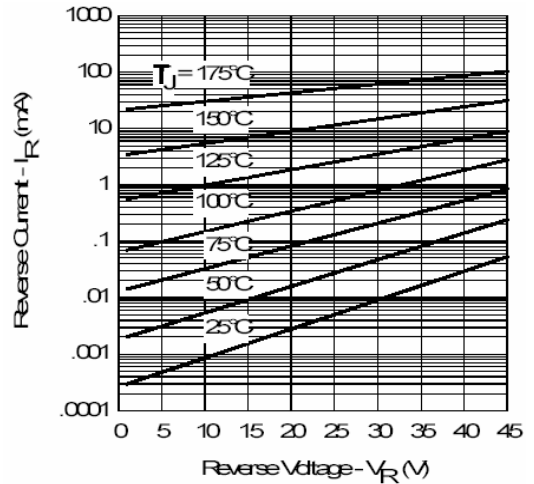


Fig. 2 - Typical Values of Reverse Current Vs. Reverse Voltage

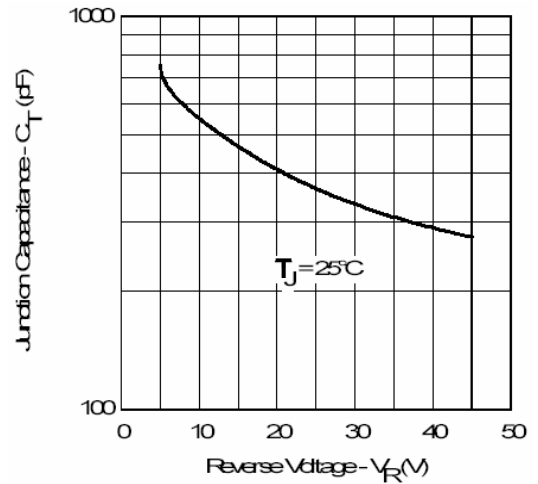


Fig. 3 - Typical Junction Capacitance Vs. Reverse Voltage

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