200mW , Hermetically Sealed Glass Fast Switching Schottky Barrier Diodes

FEATURES

- Hermetically sealed glasss
- Compliant to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

- Adapters
- For switching power supply
- Low stored charge
- Inverter

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
P_D	200	mW
V_{RRM}	30	V
I_{FSM}	4	A
V_F at I_F=200mA	1	V
T_J Max.	125	°C
Package	DO-35	
Configuration	Single die	

MECHANICAL DATA

- Case: DO-35
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 1A whisker test
- Polarity: Indicated by cathode band

Pb Pb-Free RoHS COMPLIANT

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)				
PARAMETER	**SYMBOL**	**BAT42**	**BAT43**	**UNIT**
Power dissipation	P_D	200		mW
Repetitive peak reverse voltage	V_{RRM}	30		V
Maximum DC blocking voltage	V_R	30		V
Average forward rectified current	$I_{F(AV)}$	200		mA
Peak forward surge current (t<10ms)	I_{FSM}	4		A
Junction temperature range	T_J	-65 to +125		°C
Storage temperature range	T_{STG}	-65 to +125		°C

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)						
PARAMETER	**CONDITIONS**		**SYMBOL**	**MIN**	**MAX**	**UNIT**
Reverse voltage [2]	I_R = 100 μA, T_J = 25°C		V_R	30	-	V
Reverse current [2]	V_R = 25 V, T_J = 25°C		I_R	-	500	nA
Forward voltage [1]	I_F = 200mA, T_J = 25°C	BAT42	V_F	-	1.00	V
	I_F = 10mA, T_J = 25°C			-	0.40	
	I_F = 50mA, T_J = 25°C			-	0.65	
	I_F = 200mA, T_J = 25°C	BAT43		-	1.00	
	I_F = 2mA, T_J = 25°C			0.26	0.33	
	I_F = 15mA, T_J = 25°C			-	0.45	
Junction capacitance	1 MHz, V_R=1V		C_J	7 (Typ.)		pF
Reverse recovery time	I_F = I_R = 10mA R_L = 100Ω , I_{RR} = 1mA		t_{rr}	5 (Typ.)		ns

Notes:

1. Pulse test with PW=0.3 ms
2. Pulse test with PW=30 ms

ORDERING INFORMATION		
PART NO.	**PACKAGE**	**PACKING**
BAT42 R0	DO-35	10K / 14" Reel
BAT42 R0G	DO-35	10K / 14" Reel
BAT42 A0	DO-35	5K / Box (Ammo)
BAT42 A0G	DO-35	5K / Box (Ammo)
BAT43 R0	DO-35	10K / 14" Reel
BAT43 R0G	DO-35	10K / 14" Reel
BAT43 A0	DO-35	5K / Box (Ammo)
BAT43 A0G	DO-35	5K / Box (Ammo)

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig. 1 Admissible Power Dissipation VS. Ambient Temperature

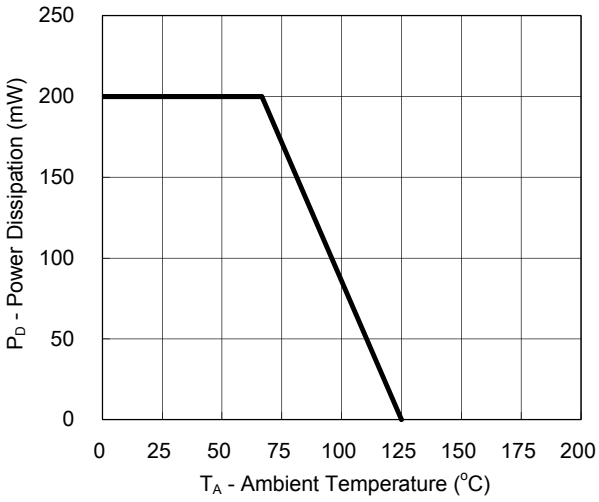


Fig. 2 Typical Reverse Characteristics

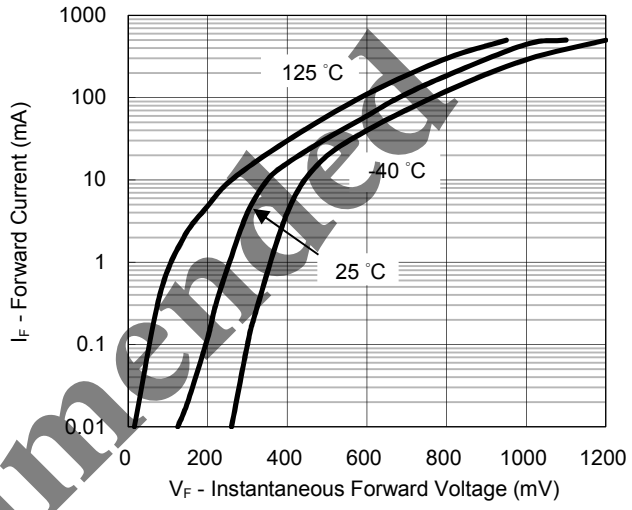


Fig. 3 Typical Reverse Characteristics

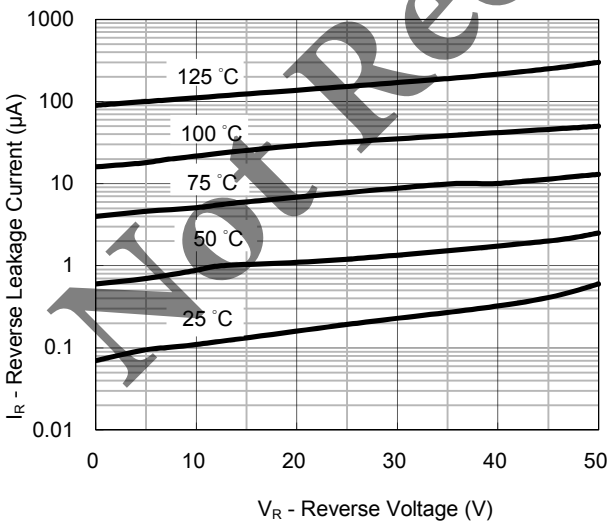
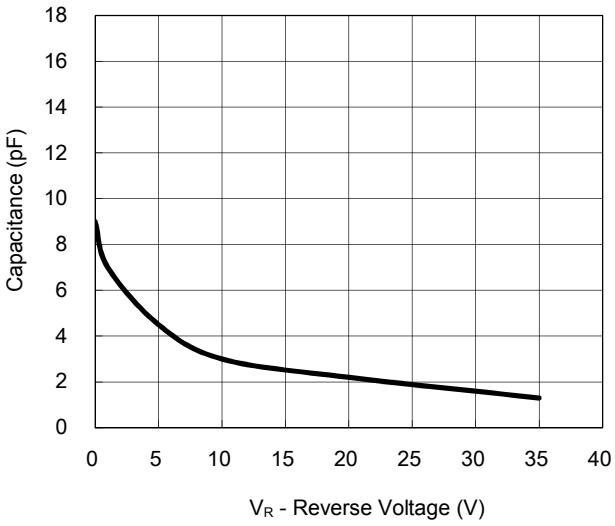
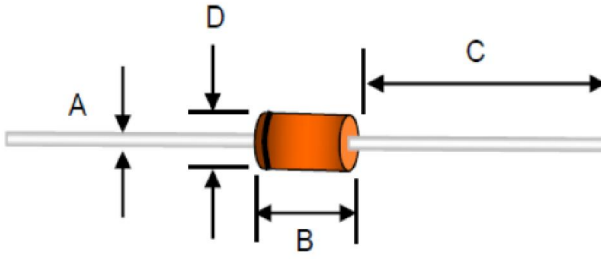


Fig.4 TypicalCapacitance VS. Reverse Applied Voltage



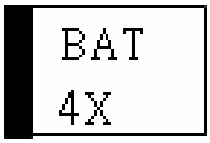
PACKAGE OUTLINE DIMENSION

DO-35



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	0.34	0.60	0.013	0.024
B	2.90	5.08	0.114	0.200
C	25.40	38.10	1.000	1.500
D	1.30	2.28	0.051	0.090

MARKING DIAGRAM



"x" is device code from "2" - "3".

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