200mA, 250V Surface Mount Switching Diode

FEATURES

- Low power loss, high efficiency
- High surge current capability
- Hermetically sealed glass
- RoHS Compliant

APPLICATIONS

- Switching mode power supply (SMPS)
- Adapters
- Lighting application
- On-board DC/DC converter

MECHANICAL DATA

- Case: MMELF
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Polarity: Indicated by cathode band
- Weight: 30.60mg (approximately)

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
I_F	200	mA
V_{RRM}	250	V
I_{FSM}	4	A
V_F at I_F = 100mA	1	V
$T_{J\,MAX}$	200	°C
Package	MMELF	
Configuration	Single die	

Pb-Free RoHS COMPLIANT

MMELF

ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)				
PARAMETER		**SYMBOL**	**VALUE**	**UNIT**
Repetitive peak reverse voltage		V_{RRM}	250	V
Forward current		I_F	200	mA
Non-repetitive peak forward surge current	t = 1s	I_{FSM}	1	A
	t = 1μs		4	A
Junction temperature range		T_J	-65 to +200	°C
Storage temperature range		T_{STG}	-65 to +200	°C

THERMAL PERFORMANCE			
PARAMETER	**SYMBOL**	**LIMIT**	**UNIT**
Junction-to-ambient thermal resistance	$R_{\Theta JA}$	300	°C/W

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)						
PARAMETER		**CONDITIONS**	**SYMBOL**	**TYP**	**MAX**	**UNIT**
Forward voltage[1]		I_F = 100mA, T_J = 25°C	V_F	-	1	V
Reverse current @ rated V_R[2]	BAV101	V_R = 100V, T_J = 25°C	I_R	-	100	nA
	BAV103	V_R = 200V, T_J = 25°C		-	100	nA
Junction capacitance		1MHz, V_R = 0V	C_J	-	4	pF

Notes:

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

ORDERING INFORMATION		
ORDERING CODE	**PACKAGE**	**PACKING**
BAV101 L0G	MMELF	10,000 / 13" Tape & Reel
BAV103 L0G	MMELF	10,000 / 13" Tape & Reel

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 Reverse Current VS. Junction Temperature

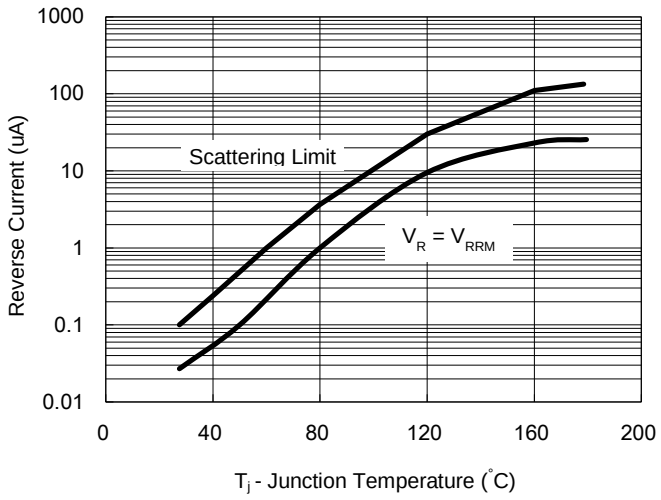


Fig.2 Forward Current VS. Forward Voltage

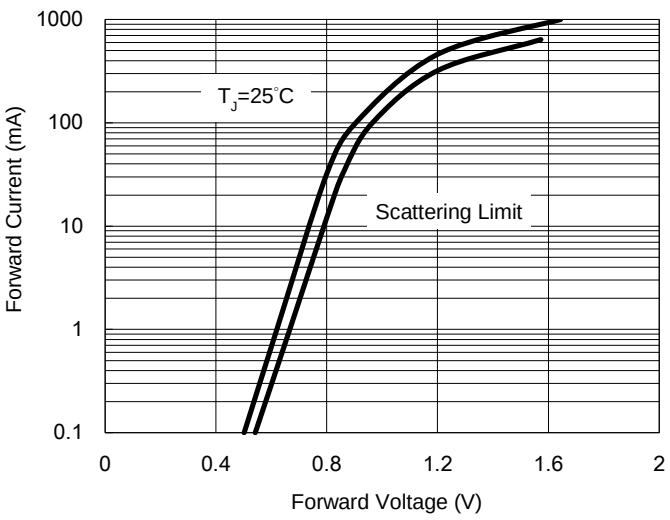
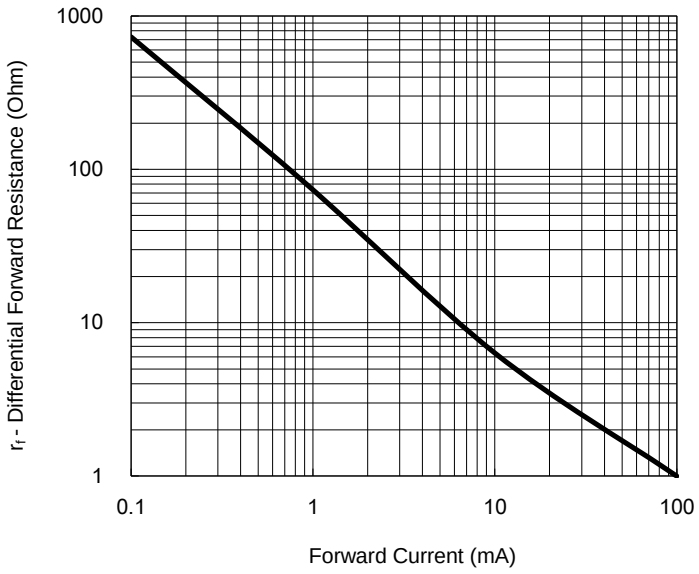
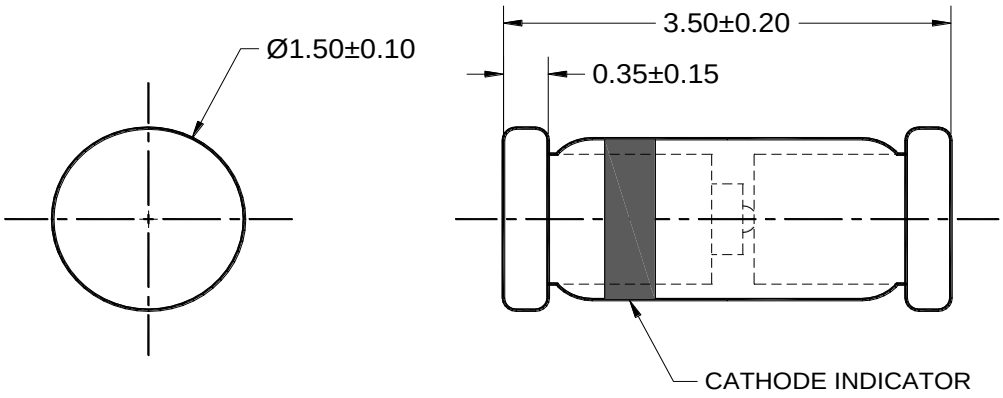


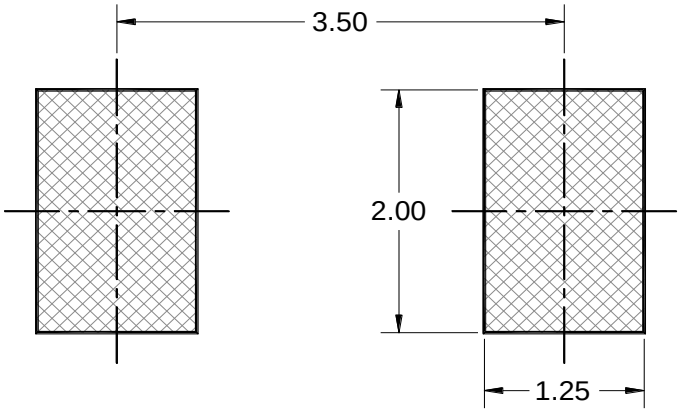
Fig.3 Differential Forward Resistance VS. Forward Current



PACKAGE OUTLINE DIMENSIONS

MMELF





SUGGESTED PAD LAYOUT

NOTES: UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS ARE IN MILLIMETERS.
2. DIMENSIONING AND TOLERANCING PER ASME Y14.5M-1994.
3. PACKAGE OUTLINE REFERENCE: JEDEC DO-213, VARIATION AA, ISSUE D.
4. DWG NO. REF: HQ2SD07-MMELFG-044 REV A.

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