200mA, 250V Switching Diode

FEATURES

- Low power loss, high efficiency
- Ideal for automated placement
- High surge current capability
- Compliance to RoHS directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

APPLICATIONS

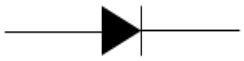
- Switching mode power supply (SMPS)
- Adapters
- Lighting application
- On-board DC/DC converter

MECHANICAL DATA

- Case: MINI MELF
- Packing code with suffix "G" means green compound (halogen-free)
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Polarity: Indicated by cathode band
- Weight: 0.06 (approximately)

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
$I_{F(AV)}$	200	mA
V_{RRM}	250	V
I_{FSM}	4	A
V_F at I_F=100mA	1.00	V
$T_{J\ MAX}$	200	°C
Package	MINI MELF	
Configuration	Single dice	

Pb-Free RoHS COMPLIANT HALOGEN FREE



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)				
PARAMETER		**SYMBOL**	**PART NUMBER**	**UNIT**
Repetitive peak reverse voltage		V_{RRM}	250	V
Forward current		$I_{F(AV)}$	200	mA
Non-repetitive peak forward surge current	Pulse width = 1.0 s Pulse width = 1.0 μs	I_{FSM}	1 4	A
Junction temperature range		T_J	-65 ~ 200	°C
Storage temperature range		T_{STG}	-65 ~ 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 per diode (1)	I_F = 100mA, T_J = 25°C	V_F	--	1	V
Reverse current @ rated V_R per diode (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	1 MHz, V_R=0V	C_J	--	4	pF

Notes:

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

ORDERING INFORMATION				
PART NO.	**PACKING CODE**	**PACKING CODE SUFFIX**	**PACKAGE**	**PACKING**
BAV10X (Note 1&2)	L0	G	MINI MELF	10K / 13" Reel
	L1			2.5K / 7" Reel

Notes:

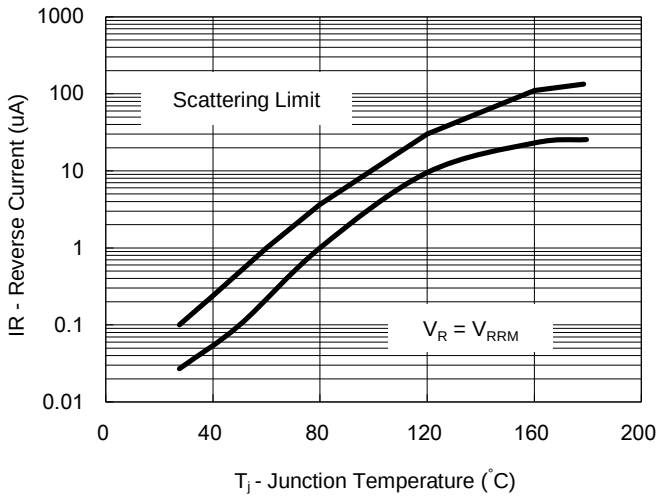
1. "x" is device code is "1" & "3"
2. Whole series with green compound

EXAMPLE				
EXAMPLE P/N	**PART NO.**	**PACKING CODE**	**PACKING CODE SUFFIX**	**DESCRIPTION**
BAV101 L0G	BAV101	L0	G	Green compound

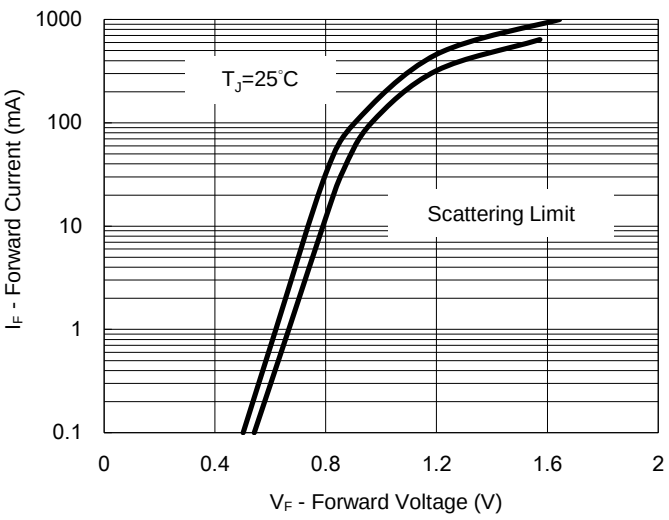
CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

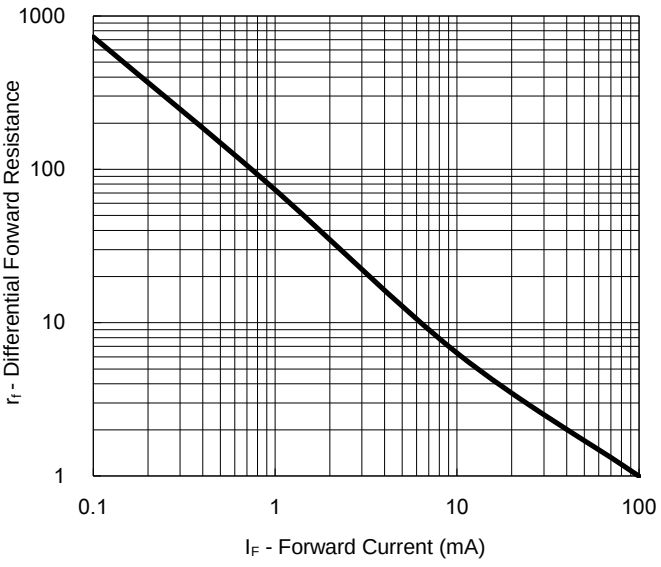
Reverse Current VS. Junction Temperature



Forward Current VS. Forward Voltage

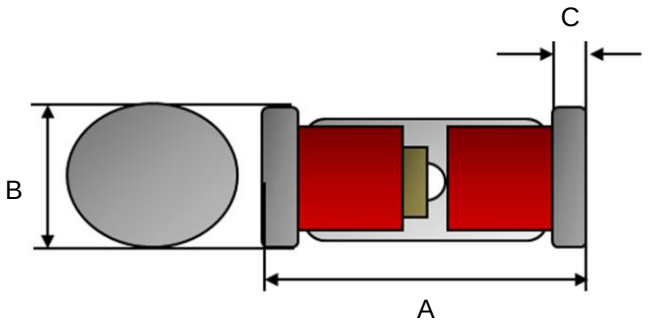


Differential Forward Resistance VS. Forward Current



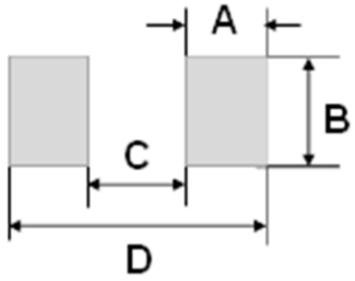
PACKAGE OUTLINE DIMENSION

MINI MELF



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	3.30	3.70	0.130	0.146
B	1.40	1.60	0.055	0.063
C	0.20	0.50	0.008	0.020

SUGGEST PAD LAYOUT



DIM.	Unit(mm)	Unit(inch)
	Typ.	Typ.
A	1.25	0.049
B	2.00	0.079
C	2.50	0.098
D	5.00	0.197

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