SBM345VMS

ULTRA LOW VF SCHOTTKY RECTIFIER

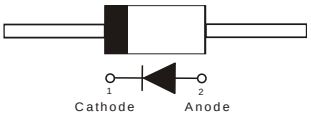
Voltage	45 V	Current	3 A

Features

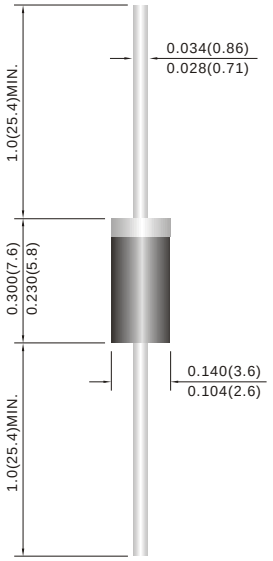
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Lead free in compliance with EU RoHS 2011/65/EU directive

Mechanical Data

- Case: Molded plastic, DO-15
- Terminals: Axial leads,solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Approx. Weight: 0.014 ounces, 0.397 grams
- Marking: Part number



DO-15 Unit : inch(mm)



Maximum Ratings (T_A=25°C unless otherwise noted)

PARAMETER		SYMBOL	LIMIT	UNIT
Maximum repetitive peak reverse voltage		V_{RRM}	45	V
Maximum rms voltage		V_{RMS}	32	V
Maximum dc blocking voltage		V_R	45	V
Maximum average forward rectified current		$I_{F(AV)}$	3	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	80	A
Typical thermal resistance	(Note 1)	$R_{\theta JA}$	65	°C/W
	(Note 2)	$R_{\theta JC}$	30	
Operating junction temperature range		T_J	-55 to +150	°C
Storage temperature range		T_{STG}	-55 to +150	°C

Note:1.The testing condition of the thermal resistance (junction to ambient) is based on 10 mm lead length between mini copper pads

2.The testing condition of the thermal resistance (junction to Case) is based on 10 mm lead length between two 10cm x 10cm copper pads

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Electrical Characteristics (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION		MIN.	TYP.	MAX.	UNITS
Breakdown voltage	V_{BR}	I_R=0.5mA	T_J=25°C	45	-	-	V
Instantaneous forward voltage	V_F	I_F=1A	T_J=25°C	-	0.34	-	V
		I_F=3A		-	0.42	0.47	
		I_F=1A	T_J=125°C	-	0.27	-	V
		I_F=3A		-	0.38	-	
Reverse current	I_R	V_R=36V	T_J=25°C	-	16	-	μA
		V_R=45V	T_J=25°C	-	-	60	μA
			T_J=125°C	-	4	-	mA

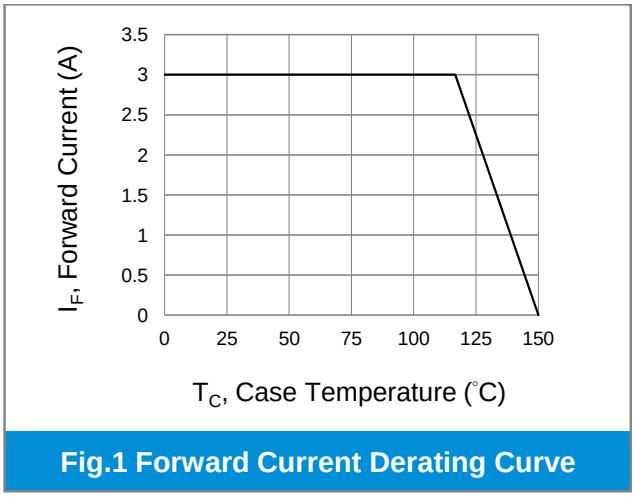

Fig.1 Forward Current Derating Curve

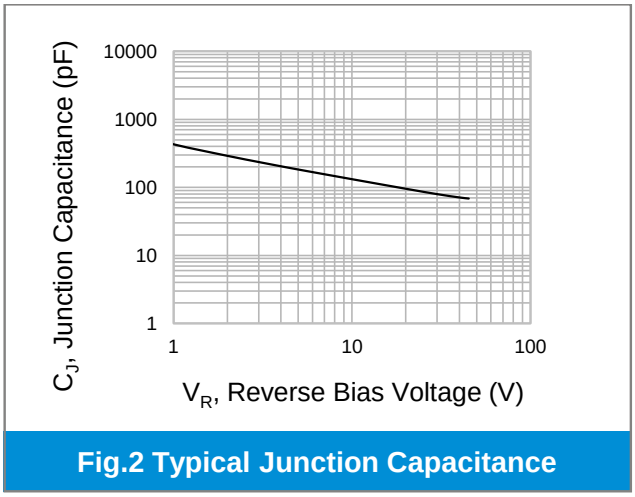

Fig.2 Typical Junction Capacitance

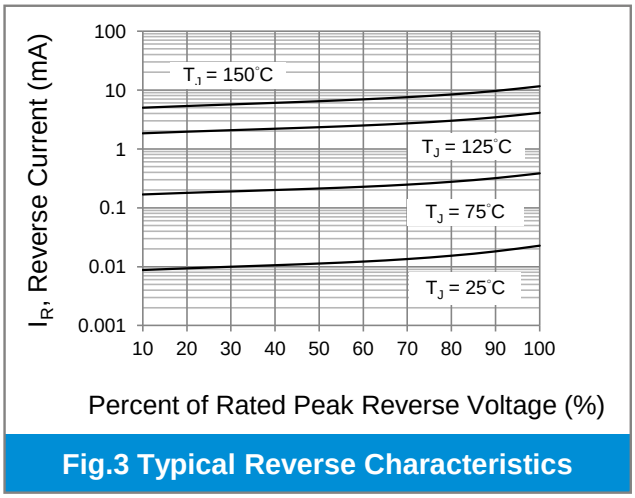

Fig.3 Typical Reverse Characteristics

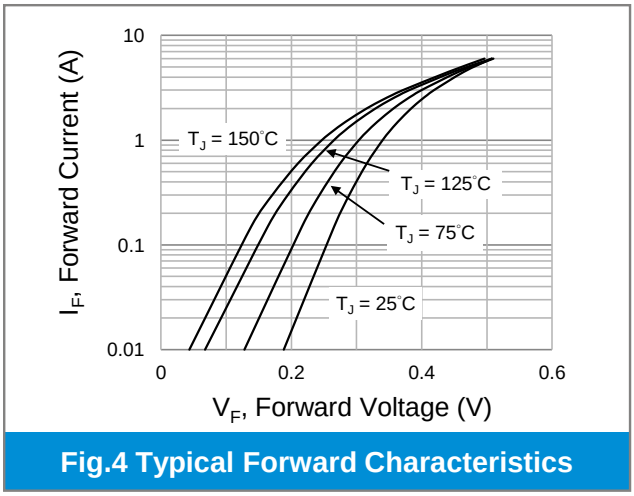

Fig.4 Typical Forward Characteristics

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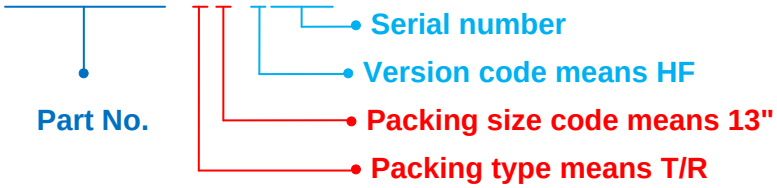
Part No_packing code_Version

SBM345VMS_AY_00001
SBM345VMS_AY_10001
SBM345VMS_B0_00001
SBM345VMS_B0_10001
SBM345VMS_R2_00001
SBM345VMS_R2_10001

For example :

RB500V-40_R2_00001



Packing Code XX				Version Code XXXXX		
Packing type	1st Code	Packing size code	2nd Code	HF or RoHS	1st Code	2nd~5th Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			

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