

# SBT10100UYD

## ULTRA LOW VF SCHOTTKY BARRIER RECTIFIER

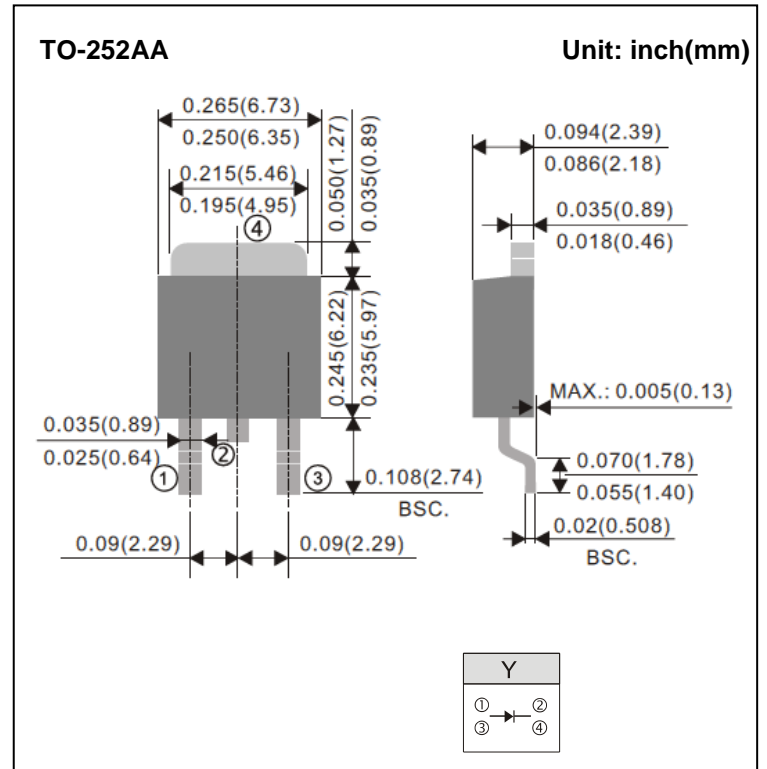
<b>Voltage</b>	<b>100 V</b>	<b>Current</b>	<b>10 A</b>
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### Features

- Ideal for automated placement
- Ultra low forward voltage drop, low power loss
- High efficiency operation
- Low thermal resistance
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### Mechanical Data

- Case: TO-252AA, Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0105 ounces, 0.297grams



### Maximum Ratings ( $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	100	V
Maximum rms voltage	$V_{RMS}$	70	V
Maximum dc blocking voltage	$V_R$	100	V
Maximum average forward rectified current	$I_{F(AV)}$	10	A
Peak forward surge current : 8.3ms single half sine-wave Superimposed on rated load	$I_{FSM}$	150	A
Typical thermal resistance (Note 1)	$R_{\theta JC}$	6	$^\circ\text{C/W}$
Operating junction temperature range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

### Electrical Characteristics

PARAMETER	SYMBOL	TEST CONDITION	TYP.	MAX.	UNIT	
Forward voltage	$V_F$	$I_F = 3A$	$T_J = 25^\circ\text{C}$	0.47	-	V
		$I_F = 5A$		0.53	-	
		$I_F = 10A$		-	0.72	
		$I_F = 3A$	$T_J = 125^\circ\text{C}$	0.4	-	V
		$I_F = 5A$		0.49	-	
Reverse current (Note 2)	$I_R$	$V_R = 70V$	$T_J = 25^\circ\text{C}$	5	-	$\mu\text{A}$
		$V_R = 100V$	$T_J = 25^\circ\text{C}$	-	80	$\mu\text{A}$
			$T_J = 125^\circ\text{C}$	7.2	-	mA

NOTE:1. Mounted on 10cm \* 10cm \* 0.5mm copper pad area  
2. Short duration pulse test used to minimize self-heating effect.



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## TYPICAL CHARACTERISTIC CURVES

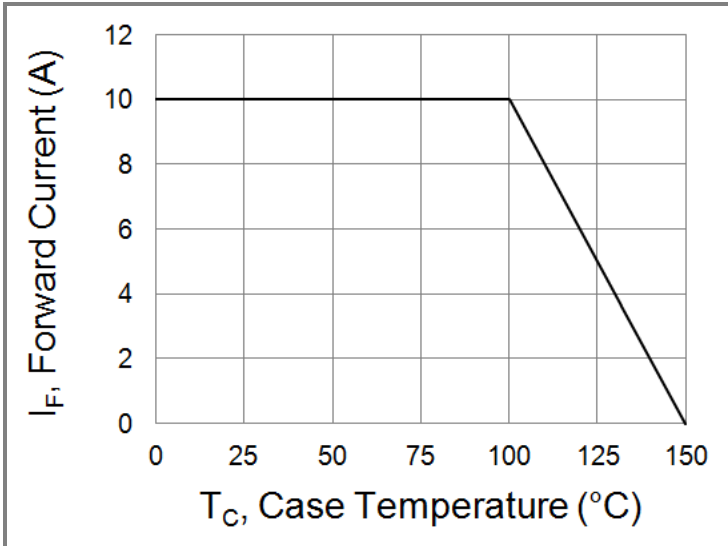


Fig.1 Forward Current Derating Curve

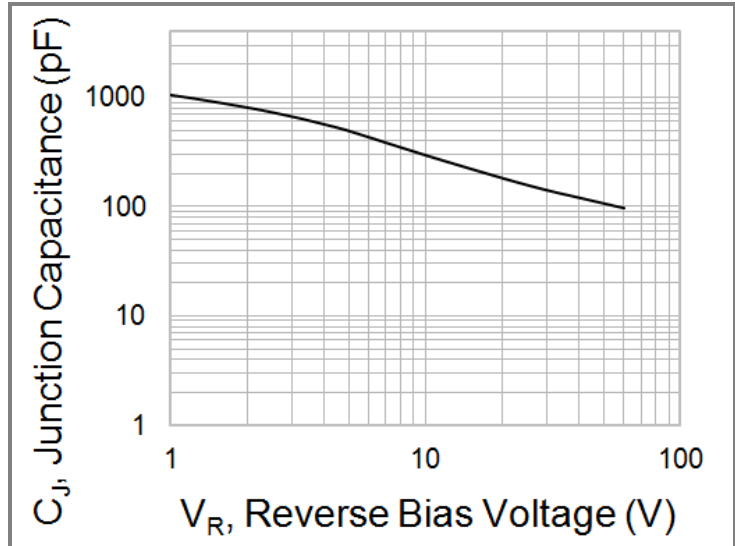


Fig. 2 Typical Junction Capacitance

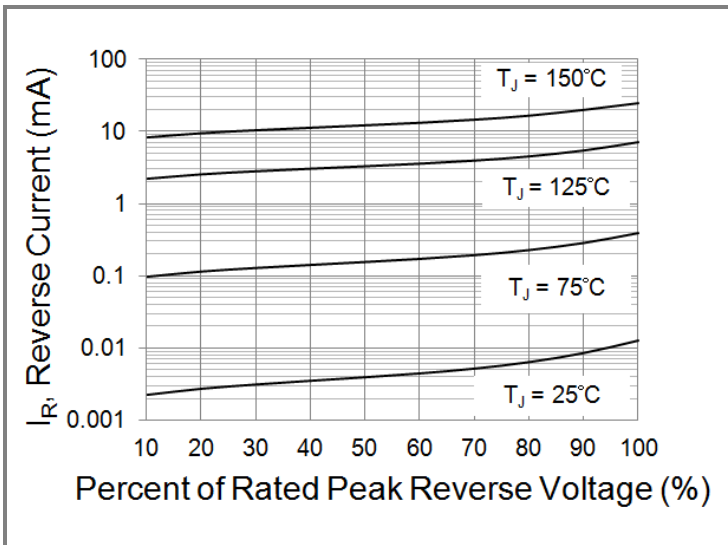


Fig.3 Typical Reverse Characteristics

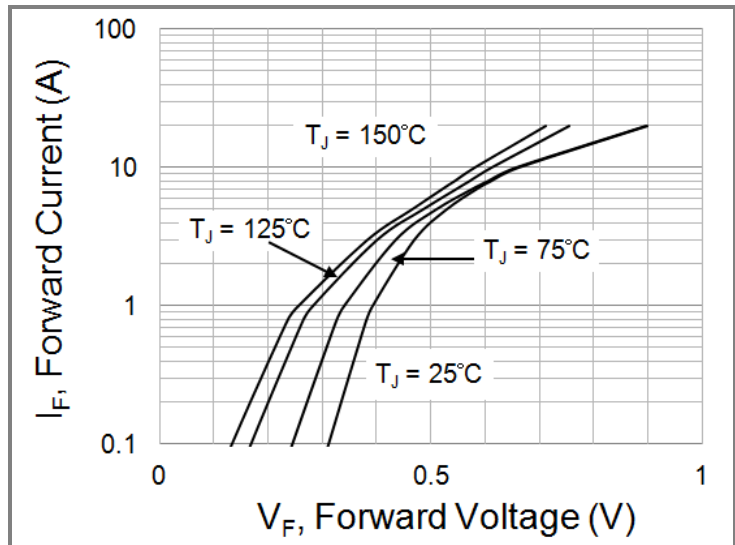


Fig.4 Typical Forward Characteristics

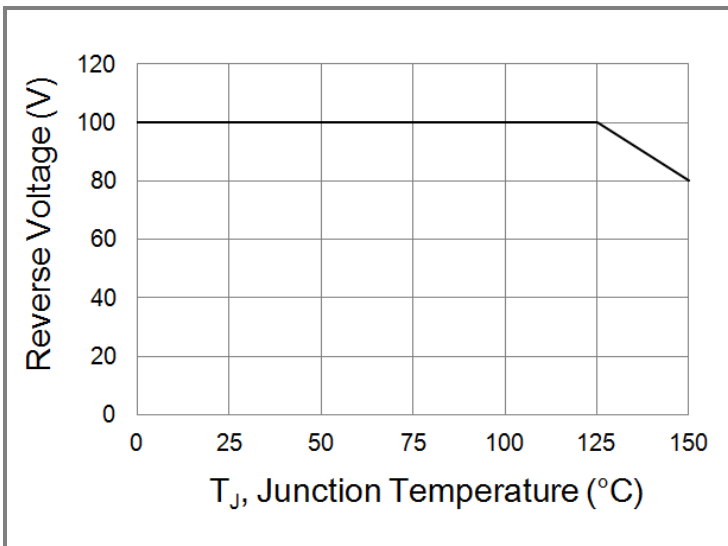


Fig.5 Operating Temperature Derating Curve

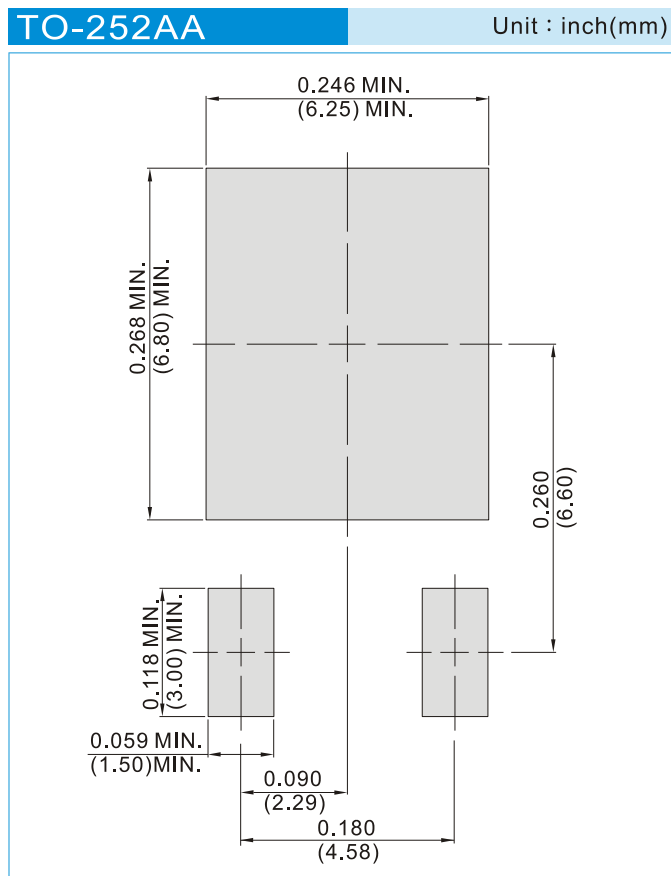


# SBT10100UYD

## Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
SBT10100UYD_L2_00001	TO-252AA	3,000pcs / 13" reel	T10100UY	Halogen free

## Mounting Pad Layout





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