

## Dual Common-Cathode Schottky Rectifier

### General Description

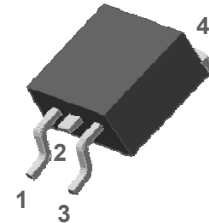
The SDB10D200D2 has two schottky barriers arranged in a common cathode configuration and is ideally suited for a full wave output rectifier in low switching power supplies and DC to DC converters where small size and high reliability are required.

### Features and Benefits

- Low forward drop voltage and low leakage current
- Low power loss and high efficiency
- Dual common-cathode rectifier construction
- RoHS compliant device

### Applications

- Switching power supply
- Output rectification
- High frequency switching
- DC/DC Converter system

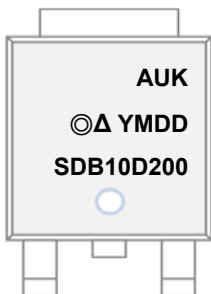

**D2-PAK**

Product Characteristics	
$I_{F(AV)}$	2 X 5A
$V_{RRM}$	200V
$V_{FM}$ at 125°C	0.72V (Typ.)
$I_{FSM}$	120A

### Ordering Information

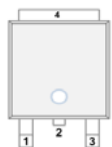
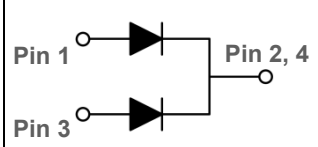
Part Number	Marking Code	Package	Packaging
SDB10D200D2	SDB10D200	D2-PAK	Tape & Reel

### Marking Information



**AUK = Manufacture Logo**  
**© = Management Code of Manufacture**  
**Δ = Control Code of Manufacture**  
**YMDD = Date Code Marking**  
 -. Y = Year Code  
 -. M = Monthly Code  
 -. DD = Daily Code  
**SDB10D200 = Specific Device Code**

### Pinning Information

Pin	Description	Simplified Outline	Graphic Symbol
1	Anode		
2, 4	Common-Cathode		
3	Anode		

# SDB10D200D2

## Absolute Maximum Ratings (Limiting values at 25°C, unless otherwise specified)

Characteristic		Symbol	Ratings	Unit
Maximum repetitive reverse voltage Maximum working peak reverse voltage Maximum DC blocking voltage		$V_{RRM}$ $V_{RWM}$ $V_R$	200	V
Maximum average forward rectified current	per diode	$I_{F(AV)}$	5	A
	total device		10	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode		$I_{FSM}$	120	A
Storage temperature range		$T_{stg}$	-45 to +150	°C
Maximum operating junction temperature		$T_J$	150	°C

## Thermal Characteristics

Characteristic		Symbol	Ratings	Unit
Thermal resistance, junction to case	per diode	$R_{th(j-c)}$	4.0	°C/W
	total device		3.6	

## Electrical Characteristics

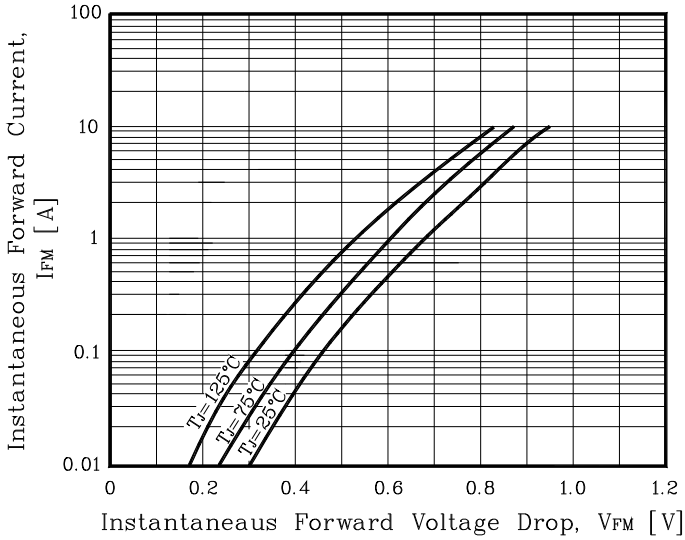
Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit	
Peak forward voltage drop	$V_{FM}^{(1)}$	$I_{FM} = 5A$	$T_j = 25^\circ C$	-	0.85	0.95	V
			$T_j = 125^\circ C$	-	0.72	0.76	V
Reverse leakage current	$I_{RM}^{(1)}$	$V_R = V_{RRM}$	$T_j = 25^\circ C$	-	-	10	uA
			$T_j = 125^\circ C$	-	-	10	mA
Junction capacitance	$C_j$	$V_R = 1V_{DC}, f = 1MHz$	-	150	-	pF	

<sup>1)</sup> Pulse test:  $t_p \leq 380\mu s$ , Duty cycle  $\leq 2\%$

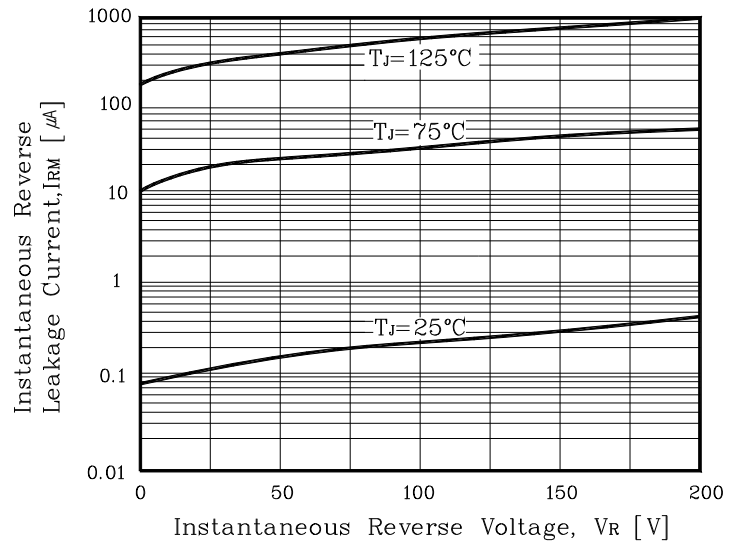
<sup>2)</sup> Pulse test:  $t_p \leq 5ms$ , Duty cycle  $\leq 2\%$

## Rating and Characteristic Curves

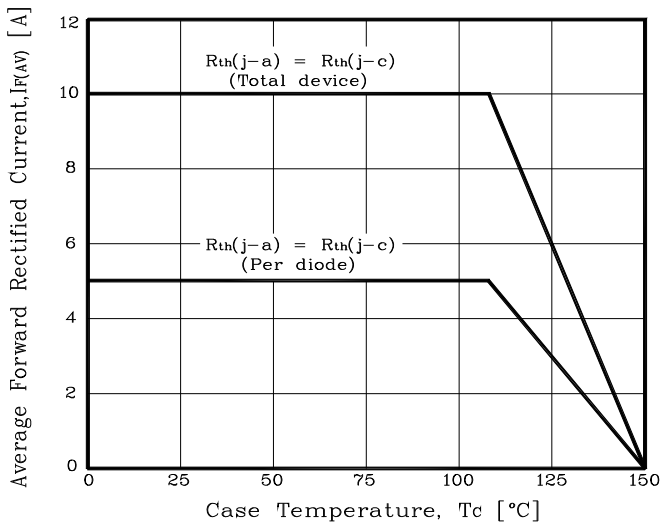
**Fig. 1) Typical Forward Characteristics (Per diode)**



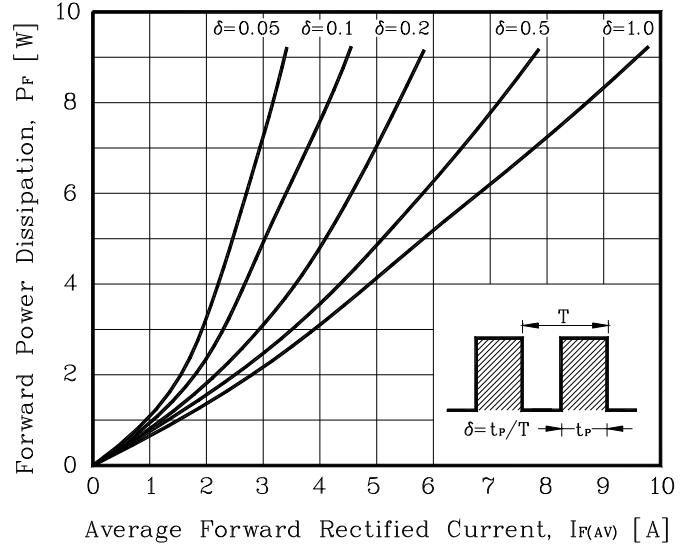
**Fig. 2) Typical Reverse Characteristics (Per diode)**



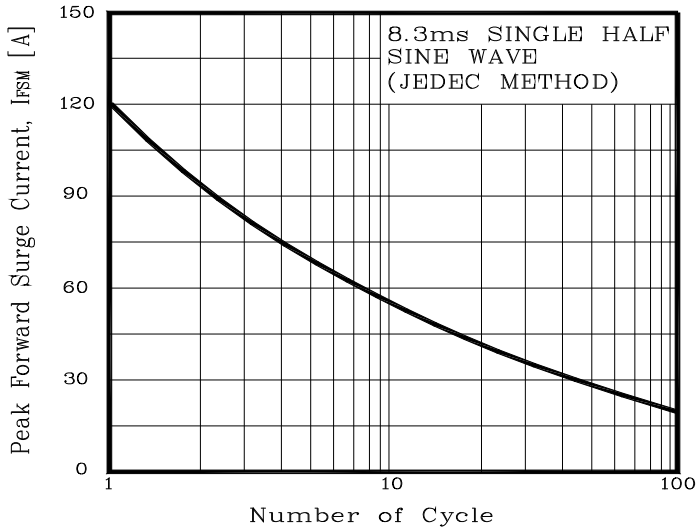
**Fig. 3) Maximum Forward Derivative Curve**



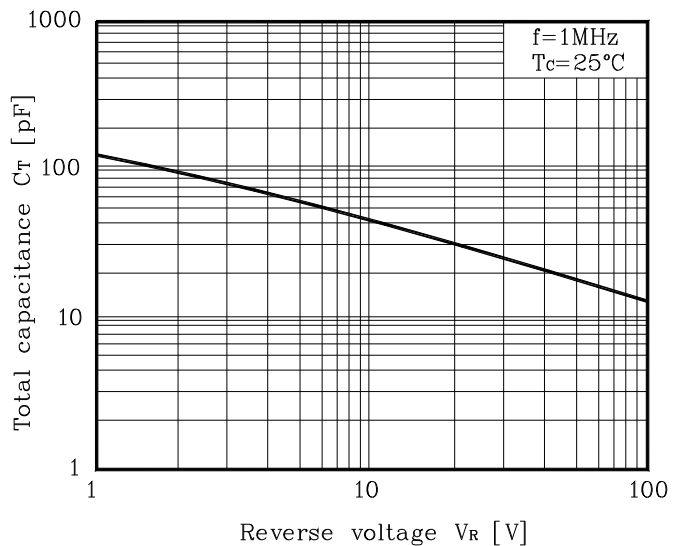
**Fig. 4) Forward Power Dissipation (Per diode)**



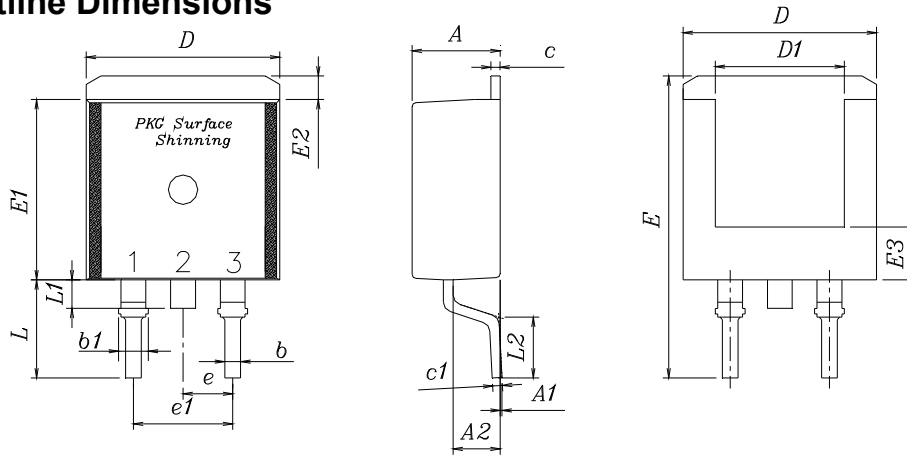
**Fig. 5) Maximum Non-Repetitive Peak Forward Surge Current (Per diode)**



**Fig. 6) Typical Junction Capacitance (Per diode)**

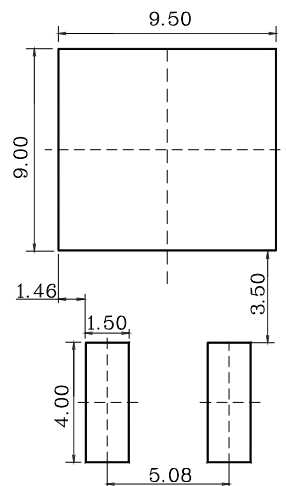


## Package Outline Dimensions



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	4.35	4.50	4.65	
A1	—	—	0.15	
A2	2.20	2.40	2.60	
b	0.70	0.80	0.90	
b1	1.17	1.27	1.37	
c	0.40	0.50	0.60	
c1	0.40	0.50	0.60	
D	9.80	10.00	10.20	
D1	6.40	6.60	6.80	
E	15.00	15.40	15.80	
E1	9.05	9.20	9.35	
E2	1.00	1.20	1.40	
E3	2.50	2.70	2.90	
e	2.34	2.54	2.74	
e1	4.88	5.08	5.28	
L	4.60	5.00	5.40	
L1	1.40	1.45	1.50	
L2	2.50	—	—	

※ Recommend PCB solder land (Unit : mm)



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