KODENSHI AUK

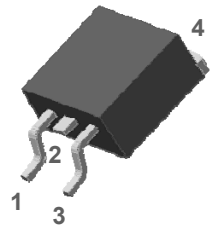
SDB10D200D2

Schottky Barrier Rectifier

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.



D2-PAK

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

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

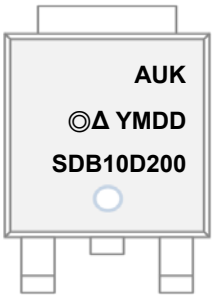
Applications

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

Ordering Information

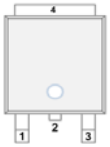
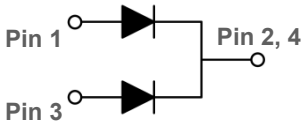
Part Number	Marking Code	Package	Packaging
SDB10D200D2	SDB10D200	D2-PAK	Tape & Reel

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		

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°C	-	0.85	0.95	V
			T_j = 125°C	-	0.72	0.76	V
Reverse leakage current	I_{RM} (1)	$V_R = V_{RRM}$	T_j = 25°C	-	-	10	uA
			T_j = 125°C	-	-	10	mA
Junction capacitance	C_j	V_R = 1V_{DC}, f = 1MHz		-	150	-	pF

[1] Pulse test: $t_p \leq 380us$, Duty cycle≤2%

[2] Pulse test: $t_p \leq 5ms$, Duty cycle≤2%

Rating and Characteristic Curves

Fig. 1) Typical Forward Characteristics (Per diode)

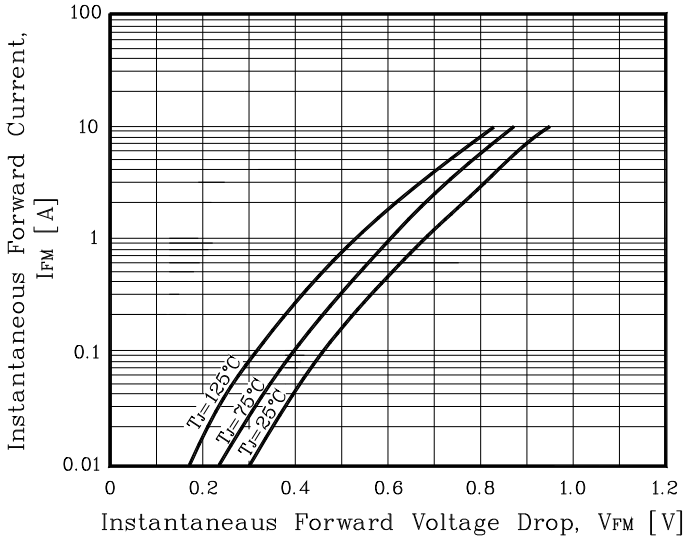


Fig. 2) Typical Reverse Characteristics (Per diode)

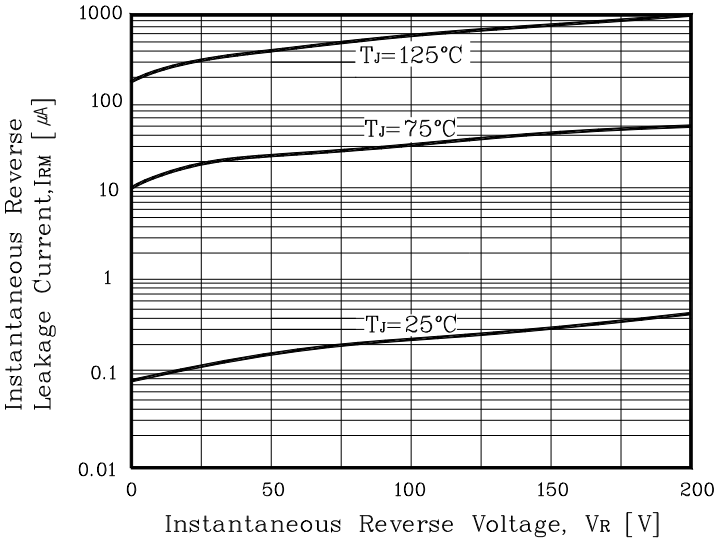


Fig. 3) Maximum Forward Derative Curve

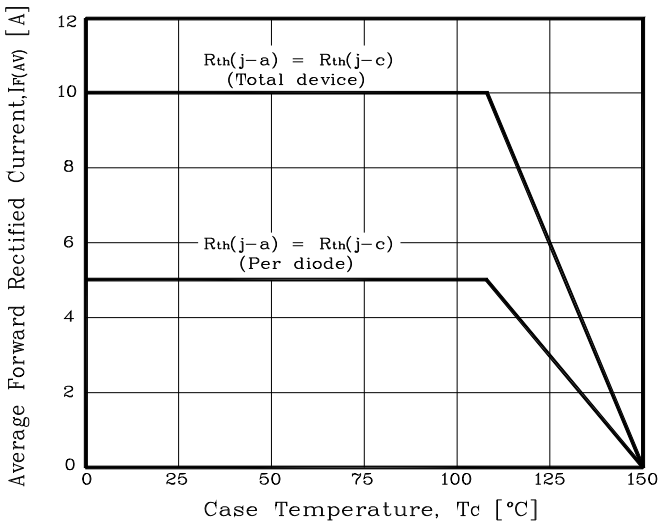


Fig. 4) Forward Power Dissipation (Per diode)

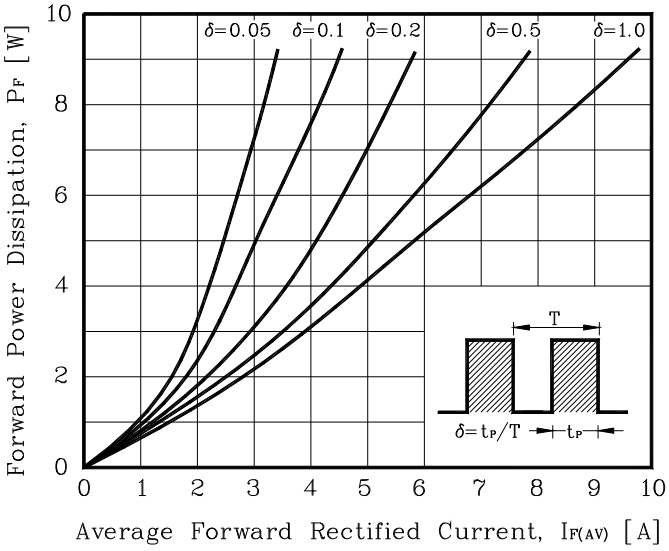


Fig. 5) Maximum Non-Repetitive Peak Forward Surge Current (Per diode)

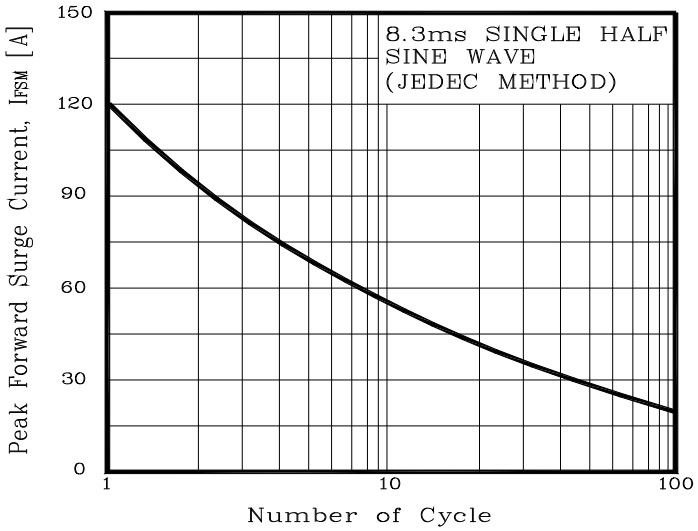
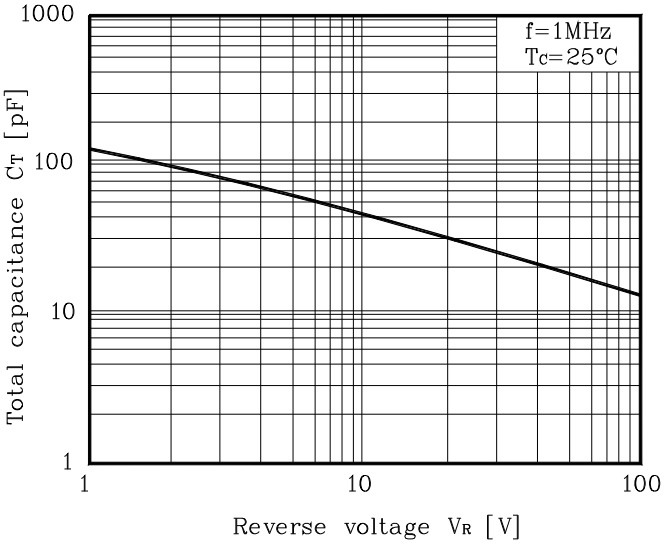
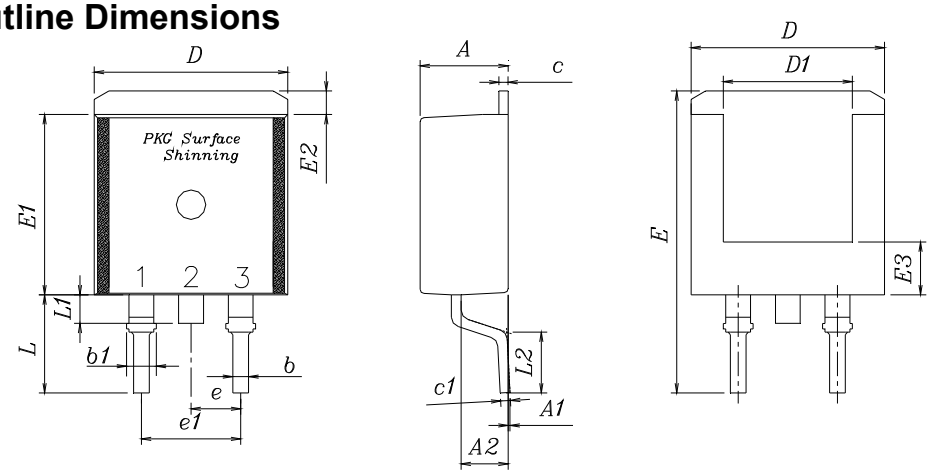


Fig. 6) Typical Junction Capacitance (Per diode)

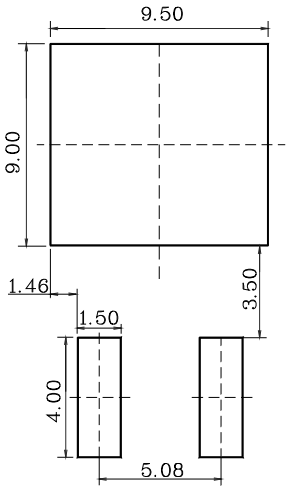


Package Outline Dimensions



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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