KODENSHI AUK

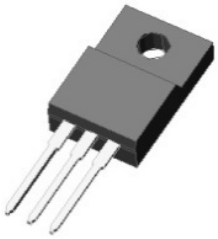
SDB20150PR

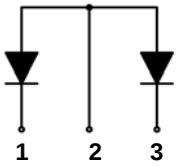
Schottky Barrier Rectifier

Dual Common Anode Schottky Rectifier

Features

- Low forward voltage drop and leakage current
- Low power loss and High efficiency
- High surge capability
- Dual common anode rectifier
- Full lead(Pb)-free component and RoHS compliant device





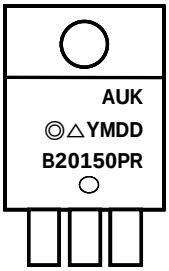
Pin 1, 3 : Cathode
Pin 2: Anode

TO-220F-3L

Ordering Information

Part Number	Marking	Package
SDB20150PR	B20150PR	TO-220F-3L

Marking Information



Column 1: Manufacturer
Column 2: Production Information
e.g.) ◎△YMDD
-. ◎△: Factory Management Code
-. YMDD: Date Code (Year, Month, Daily)
Column 3: Device Code

Absolute maximum ratings (T_C=25°C unless otherwise noted)

Characteristic		Symbol	Rating	Unit
Maximum repetitive reverse voltage Maximum working peak reverse voltage Maximum DC blocking voltage		V_{RRM} V_{RWM} V_R	150	V
Maximum average forward rectified current	Per diode	$I_{F(AV)}$	10	A
	Total device		20	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode		I_{FSM}	120	A
Power dissipation		P_D	31	W
Maximum operating junction temperature		T_J	150	°C
Storage temperature range		T_{stg}	-45~150	°C

Thermal Characteristics

Characteristic		Symbol	Value	Unit
Maximum thermal resistance junction to case	Per diode	$R_{th(J-C)}$	4.0	°C/W
	Total device		3.6	

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

Characteristic	Symbol	Test Condition		Min.	Typ.	Max.	Unit
Peak forward voltage drop	V_{FM} (1)	I_{FM} = 10A	T_J=25℃	-	0.80	0.88	V
			T_J=125℃	-	0.75	0.78	V
Reverse leakage current	I_{RM} (2)	$V_R = V_{RRM}$	T_J=25℃	-	-	20	uA
			T_J=125℃	-	-	20	mA
Junction capacitance	C_J	V_R = 4V_{DC}, f=1MHz		-	220	-	pF

Note:

(1) Pulse test : t_P≤380us, Duty cycle≤2%

(2) Pulse test : t_P≤20ms, Duty cycle≤2%

Typical Electrical Characteristic Curves

Fig. 1) Typical Forward Characteristics (Per Diode)

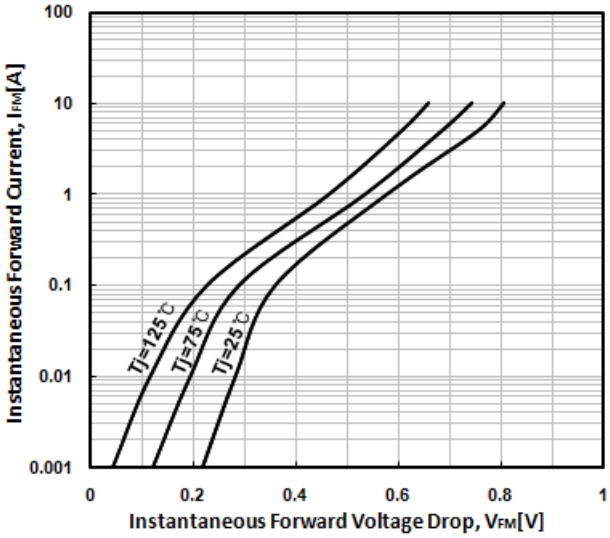


Fig. 2) Typical Reverse Characteristics (Per Diode)

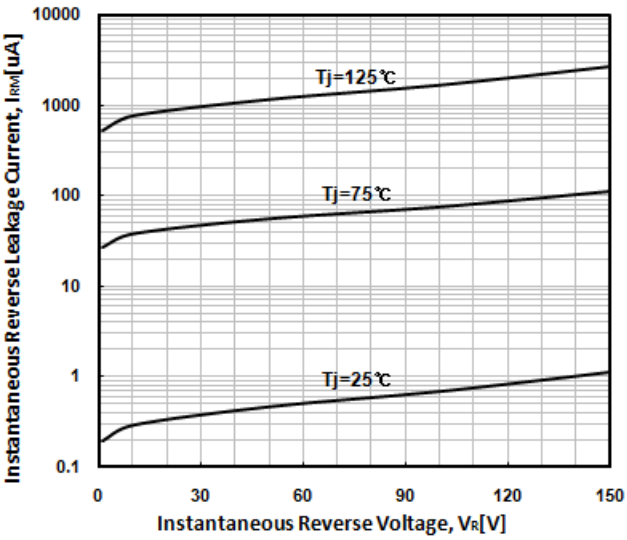


Fig. 3) Maximum Forward Derating Curve

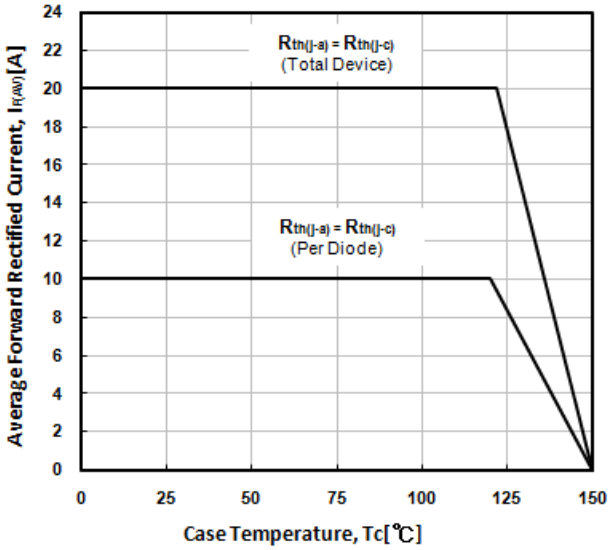


Fig. 4) Forward Power Dissipation (Per Diode)

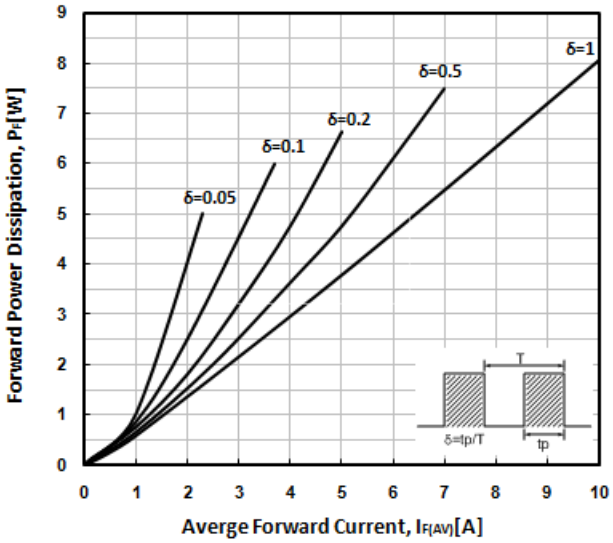


Fig. 5) Maximum Non-Repetitive Peak Forward Surge Current (Per Diode)

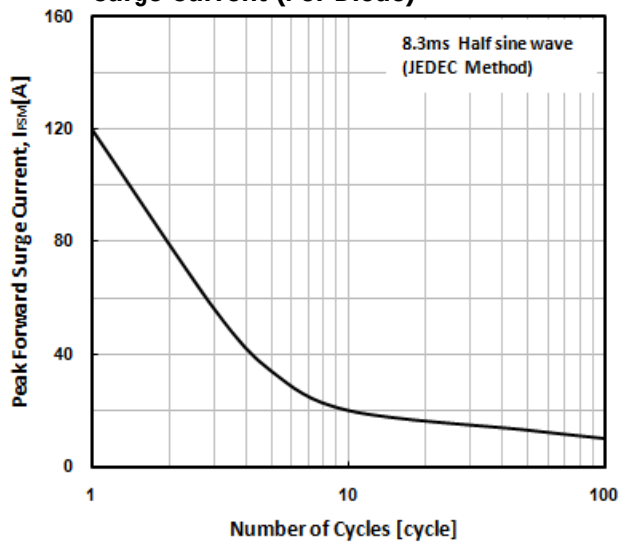
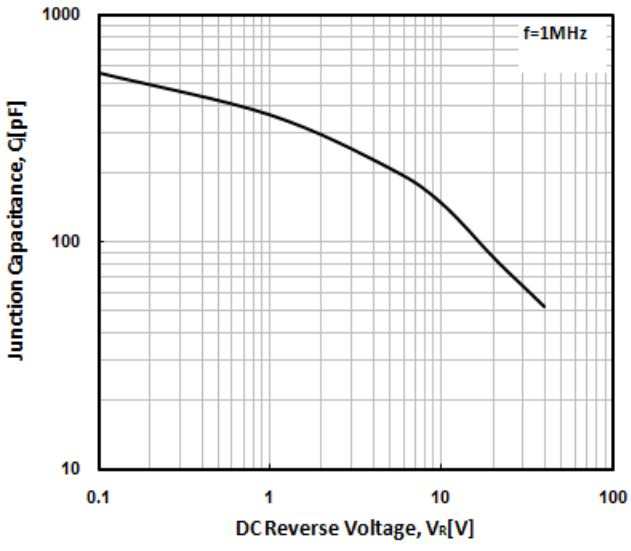
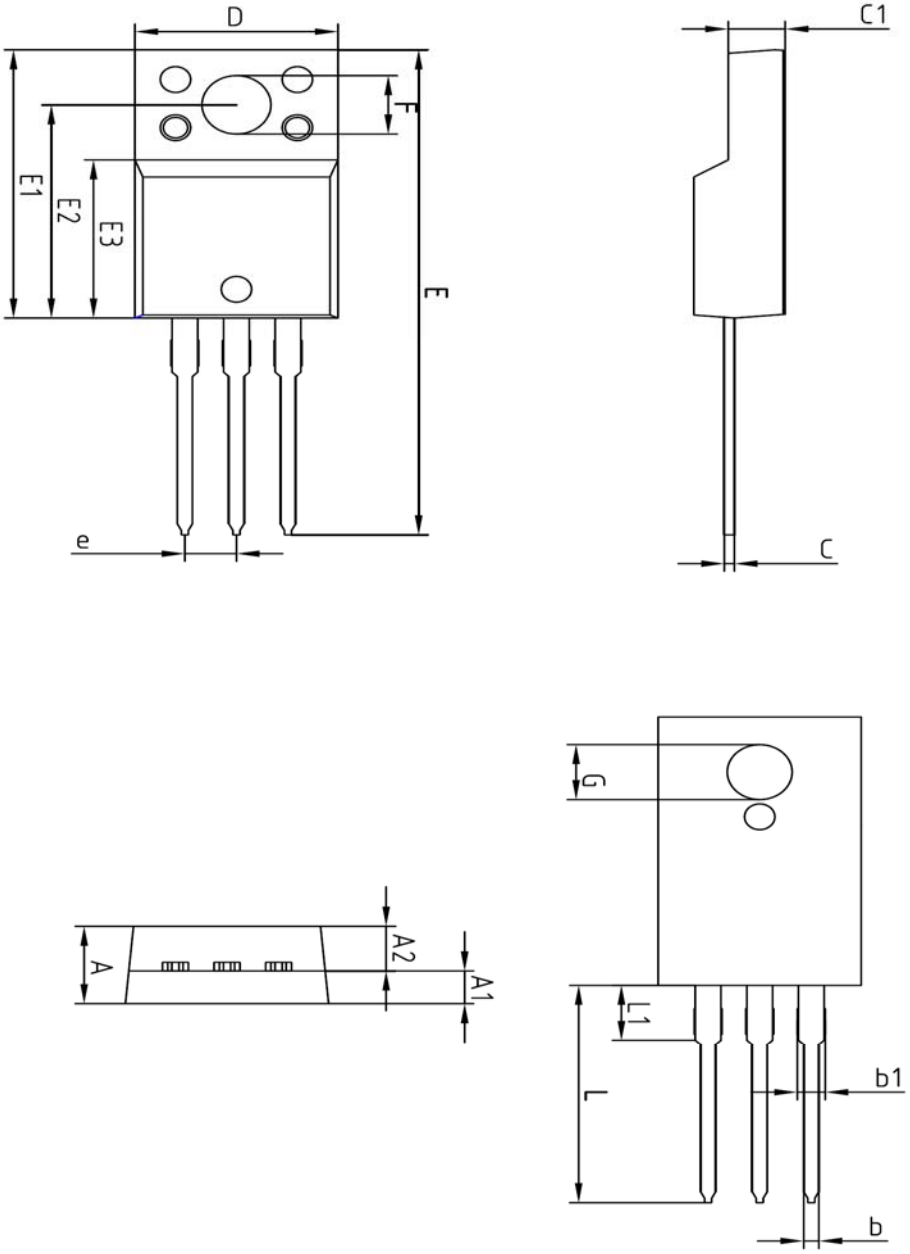


Fig. 6) Typical Junction Capacitance (Per Diode)



Package Outline Dimensions (Unit: mm)



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	–	–	4.60	
A1	2.45	2.50	2.55	
A2	1.95	2.00	2.05	
b	0.65	0.75	0.85	
b1	1.07	1.27	1.47	
C	0.40	0.50	0.60	
C1	2.70	2.80	2.90	
D	9.90	10.00	10.10	
E	28.00	–	28.60	
E1	15.50	15.60	15.70	
E2	12.30	12.40	12.50	
E3	9.15	9.20	9.25	
F	3.30	3.40	3.50	
G	3.10	3.20	3.30	
e	2.54 BSC			
L	12.40	–	13.00	
L1	3.46 BSC			

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