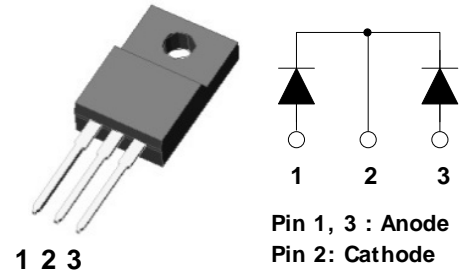


Dual Common Cathode Schottky Rectifier

Features and Benefits

- Low forward drop voltage and leakage current
- Low power loss and High efficiency
- High surge capability
- Dual common cathode rectifier
- RoHS compliant device



Applications

- Power supply – Output rectification
- Power Converter and Inverters
- Free-wheeling diode

TO-220F-3L

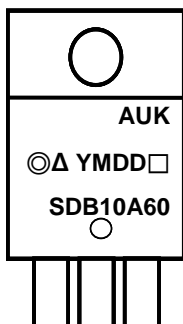
General Description

The SDB10A60C has two schottky barrier arranged in a common cathode configuration. Typical applications are in switching power supplies, converters, inverters, free-wheeling diodes, and battery protection.

Ordering Information

Part Number	Marking Code	Package	Packaging
SDB10A60C	SDB10A60	TO-220F-3L	Tube

Marking Information



Column 1: Manufacturer

Column 2: Production Information

e.g.) ◎△YMDD□

- ◎△: Factory Management Code

- YMDD: Date Code (Year, Month, Daily)

- □: Package Assembly Site

Column 3: Device Code

SDB10A60C

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	60	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	

Thermal Characteristics (Per diode)

Characteristic	Symbol	Ratings	Unit
Maximum thermal resistance	$R_{th(J-C)}$	4.0	°C/W
	$R_{th(J-A)}$	62.5	

Electrical Characteristics (Per diode)

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Unit	
Peak forward voltage drop	$V_{FM}^{1)}$	$I_{FM} = 5A$	$T_J = 25^\circ C$	-	0.60	0.70	V
			$T_J = 125^\circ C$		0.55	0.62	V
Reverse leakage current	$I_{RM}^{2)}$	$V_R = V_{RRM}$	$T_J = 25^\circ C$	-	-	0.5	mA
			$T_J = 125^\circ C$	-	-	50	
Junction capacitance	C_j	$V_R = 10V_{DC}, f=1MHz$	-	100	-	pF	

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

²⁾ Pulse test: $t_p \leq 20ms$, Duty cycle $\leq 2\%$

Typical Electrical Characteristic Curves (Per diode)

Fig. 1) Typical Forward Characteristics

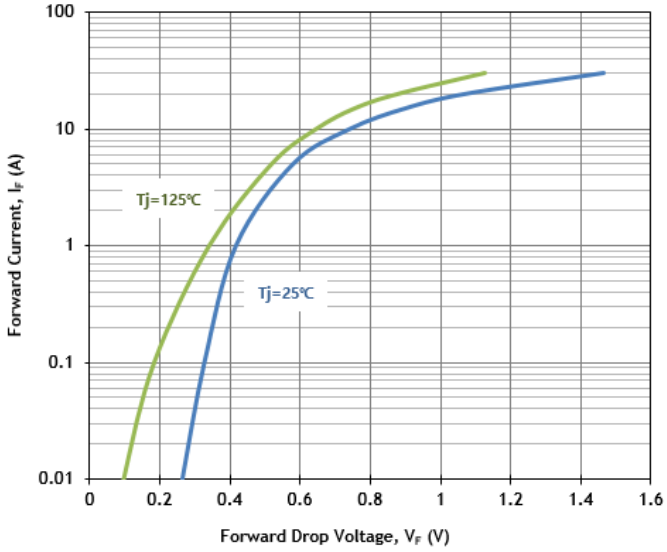


Fig. 2) Typical Reverse Characteristics

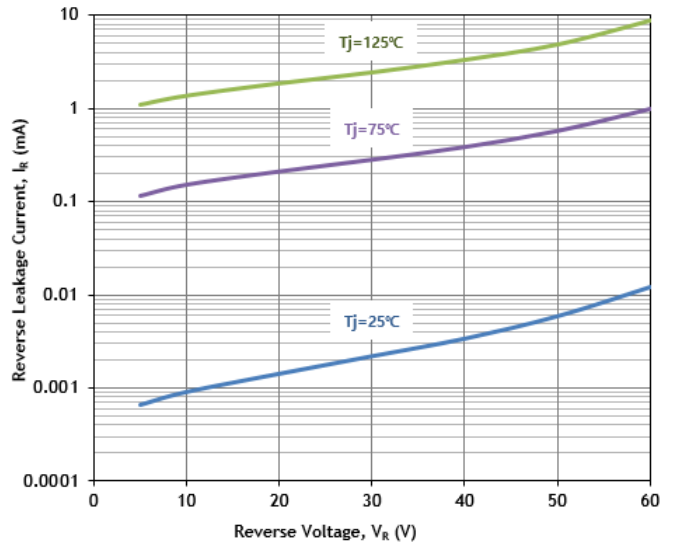


Fig. 3) Typical Junction Capacitance Characteristics

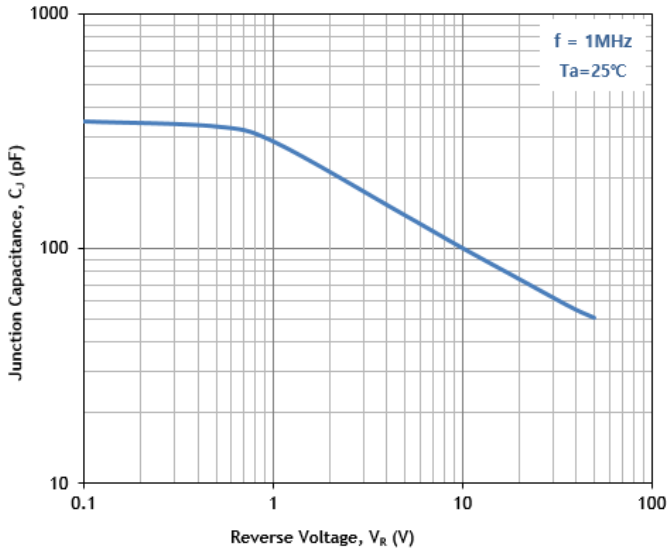


Fig. 4) Forward Power Dissipation Characteristics

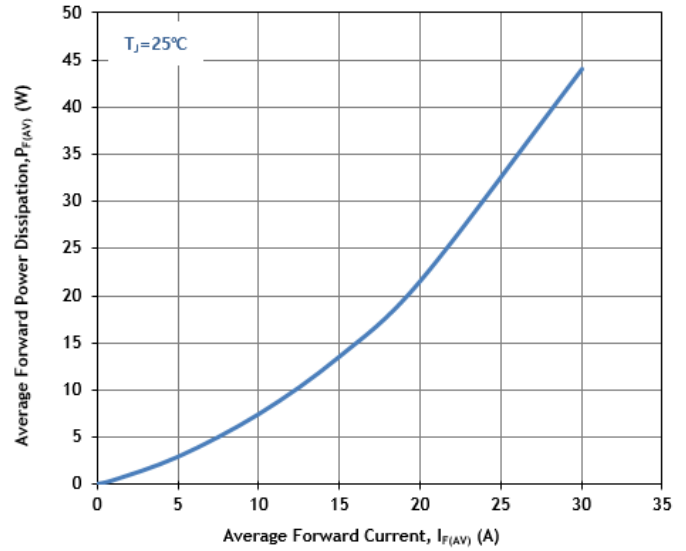


Fig. 5) Thermal Impedance Characteristics

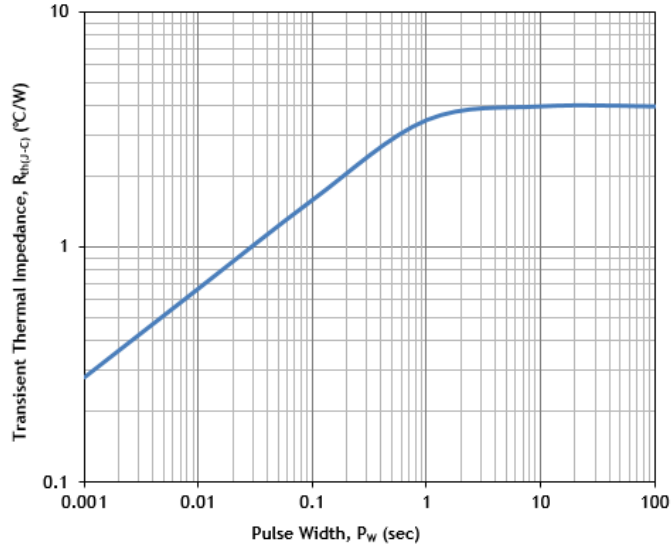
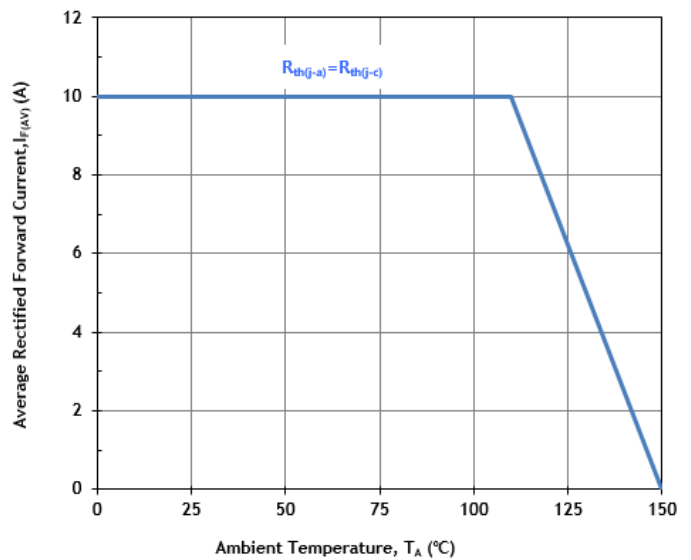
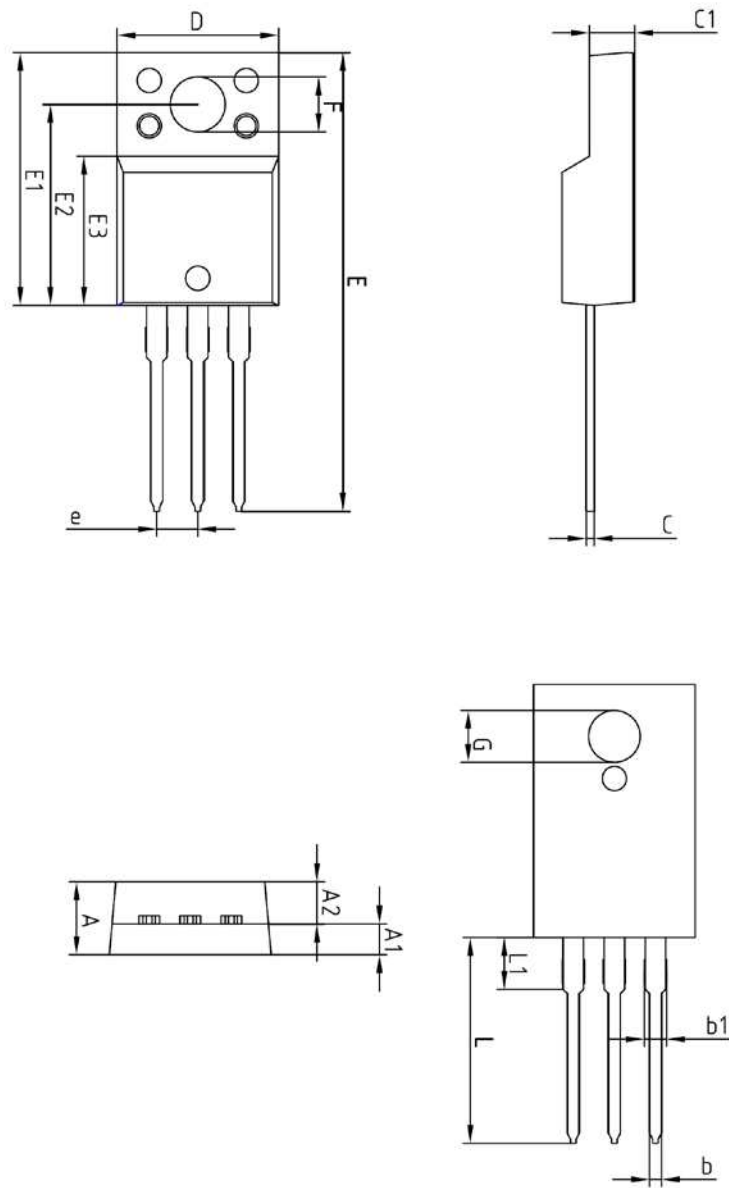


Fig. 6) Average Forward Current Characteristics

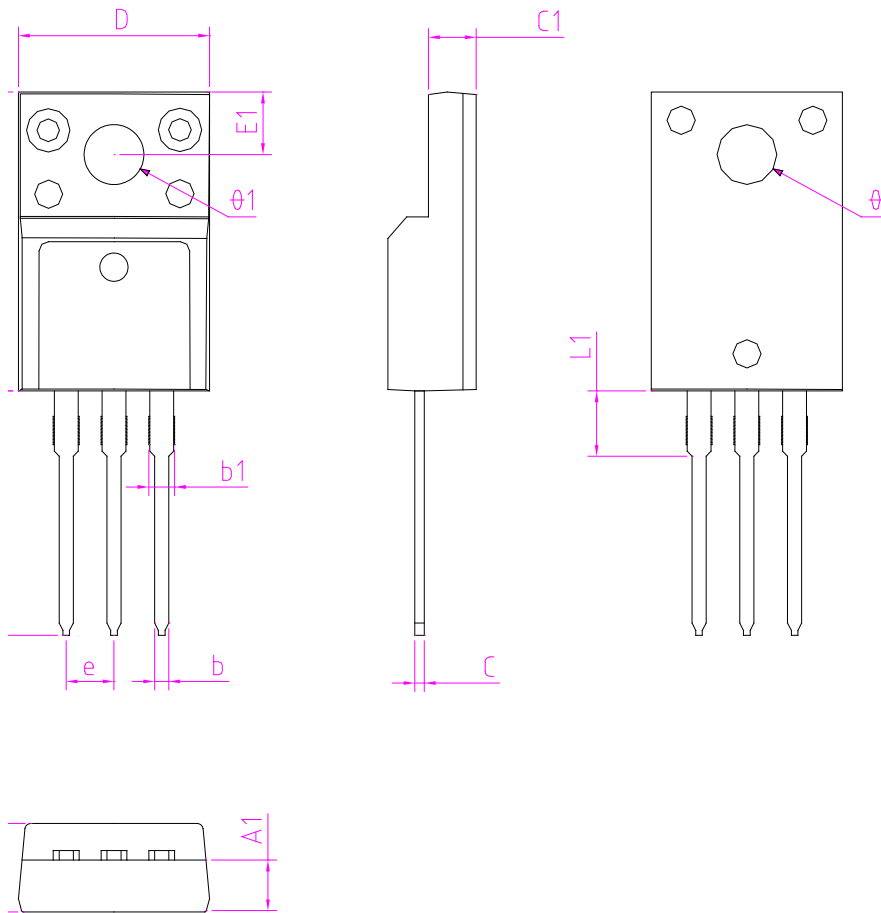


Package Outline Dimensions (Unit: mm)



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	2.34	2.54	2.74	
L	12.40	—	13.00	
L1	3.00	3.20	3.40	

Package Outline Dimensions (Unit: mm)



SYMBOL	MILLIMETERS			NOTE
	MINIMUM	NOMINAL	MAXIMUM	
A	4.65	4.70	4.75	
A1	2.71	2.76	2.81	
b	0.70	0.80	0.90	
b1	1.28	1.38	1.43	
C	0.40	0.50	0.60	
C1	2.04	2.54	3.04	
D	10.06	10.16	10.26	
e	2.54 REF			
E	15.77	15.87	15.97	
E1	3.05	3.30	3.55	
L	12.68	12.98	13.28	
L1	3.18 REF			
θ	3.30	3.40	3.50	
θ1	3.08	3.18	3.28	

The AUK Corp. products are intended for the use as components in general electronic equipment (Office and communication equipment, measuring equipment, home appliance, etc.).

Please make sure that you consult with us before you use these AUK Corp. products in equipments which require high quality and / or reliability, and in equipments which could have major impact to the welfare of human life(atomic energy control, airplane, spaceship, transportation, combustion control, all types of safety device, etc.). AUK Corp. cannot accept liability to any damage which may occur in case these AUK Corp. products were used in the mentioned equipments without prior consultation with AUK Corp..

Specifications mentioned in this publication are subject to change without notice.