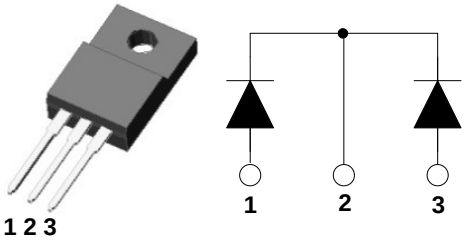
DUAL COMMON CATHODE SCHOTTKY RECTIFIER



Pin 1, 3: Anode

Pin 2: Cathode

TO-220F-3L

Features

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

Applications

- Switching power supplies
- Converter
- Free-wheeling diode
- Reverse battery protection
- Power inverters

Product Characteristics

$I_{F(AV)}$	2 X 8A
V_{RRM}	100V
V_{FM} at 125℃	0.72V
I_{FSM}	180A

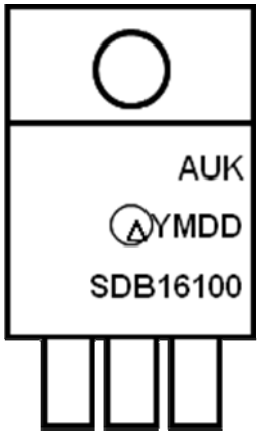
Description

The SDB16100PI Schottky rectifier has been optimized for low reverse leakage at high temperature. Ideally suited for use in low voltage, high frequency switching power supplies, free-wheeling diodes, and polarity protection diodes.

Ordering Information

Device	Marking Code	Package	Packaging
SDB16100PI	SDB16100	TO-220F-3L	Tube

Marking Information



AUK = Manufacture Logo

Δ = Control Code of Manufacture

YMDD = Date Code Marking

-. Y = Year Code

-. M = Monthly Code

-. D = Daily Code

SDB16100 = Specific Device Code

Absolute Maximum Ratings (Limiting Values)

Characteristic		Symbol	Value	Unit
Maximum repetitive reverse voltage Maximum working peak reverse voltage Maximum DC blocking voltage		V_{RRM} V_{RWM} V_R	100	V
Maximum average forward rectified current	per diode	$I_{F(AV)}$	8	A
	total device		16	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode		I_{FSM}	180	A
Storage temperature range		T_{stg}	-45℃ to +150℃	℃
Maximum operating junction temperature		T_j	150	℃

Thermal Characteristics

Characteristic		Symbol	Value	Unit
Maximum thermal resistance junction to case	per diode	$R_{th(j-c)}$	4.0	℃/W
	total device		3.6	

Electrical Characteristics (Per Diode)

Characteristic	Symbol	Test Condition		Min.	Typ.	Max.	Unit
Peak forward voltage drop	V_{FM} (1)	I_{FM} = 8A	T_j=25℃	-	-	0.82	V
			T_j=125℃	-	-	0.72	V
Reverse leakage current	I_{RM} (1)	$V_R = V_{RRM}$	T_j=25℃	-	-	0.1	mA
			T_j=125℃	-	-	5.0	mA
Junction capacitance	C_j	V_R = 10V_{DC}, f=1MHz		-	130	-	pF

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

Rating and Characteristic Curves

Fig. 1) Typical Forward Characteristics (Per Diode)

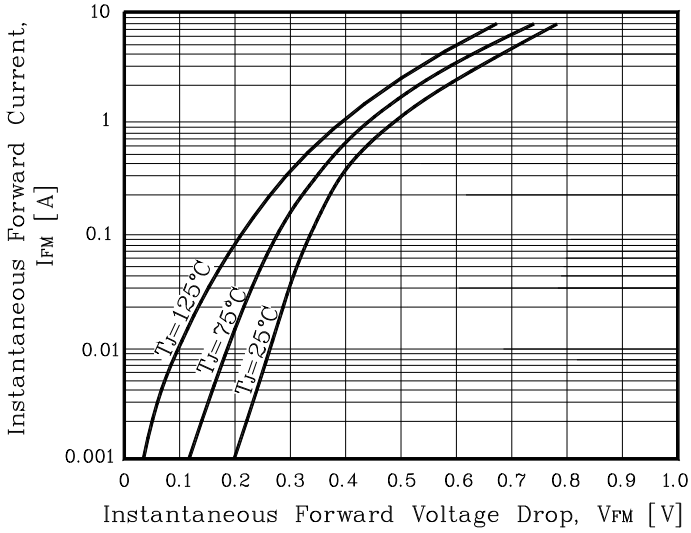


Fig. 2) Typical Reverse Characteristics (Per Diode)

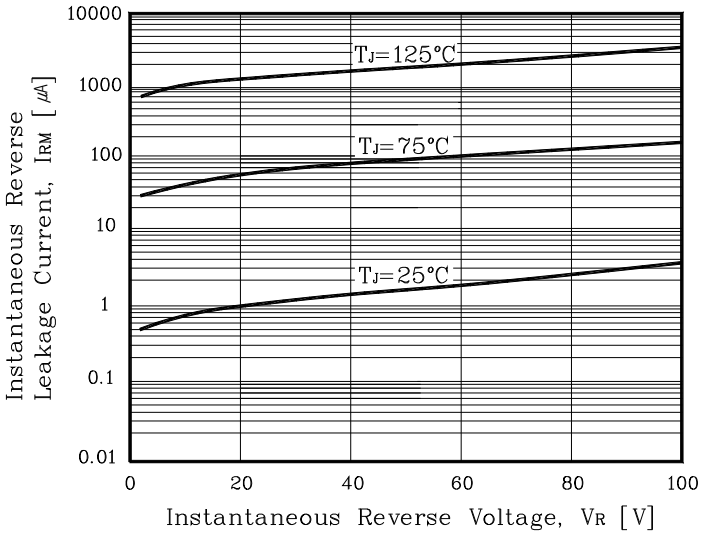


Fig. 3) Maximum Forward Derative Curve (Per Diode)

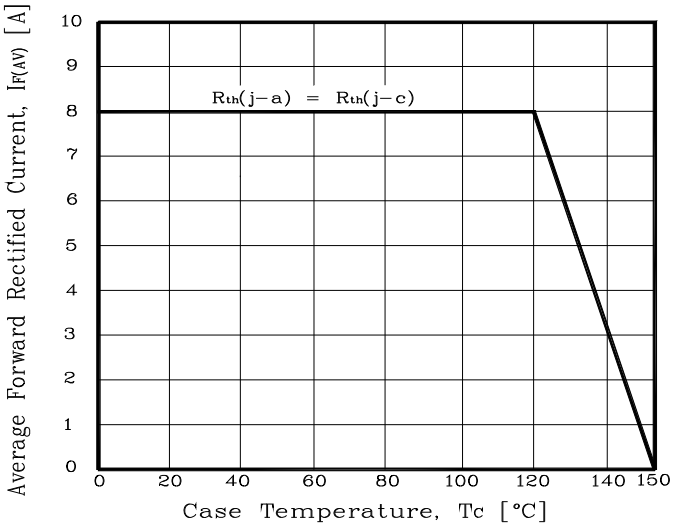


Fig. 4) Forward Power Dissipation (Per Diode)

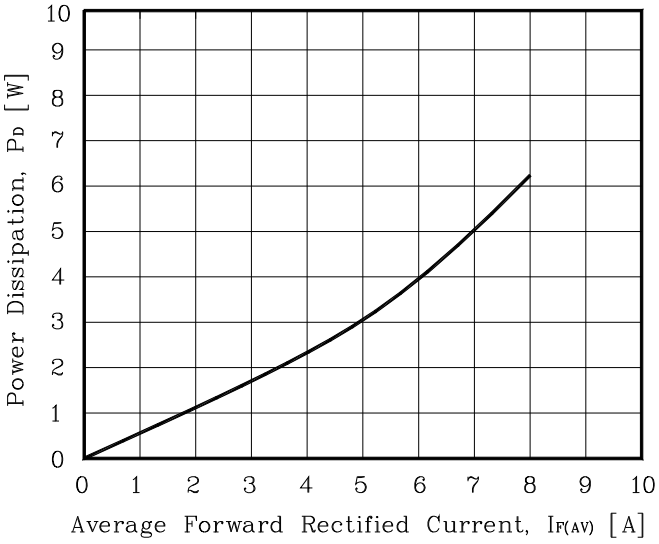


Fig. 5) Maximum Non-Repetitive Peak Forward Surge Current (Per Diode)

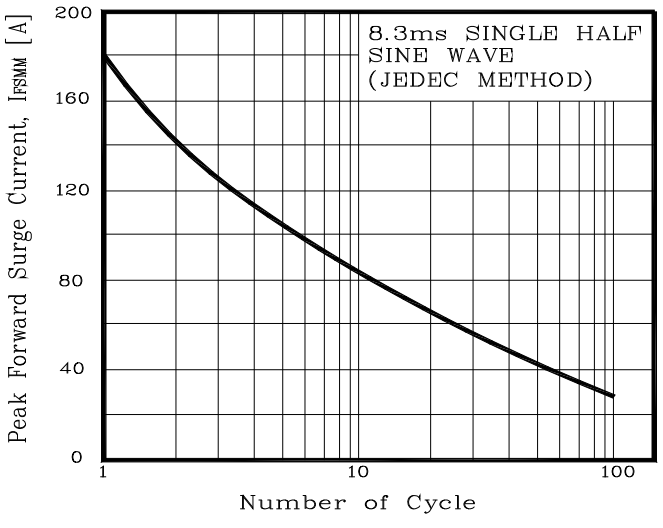
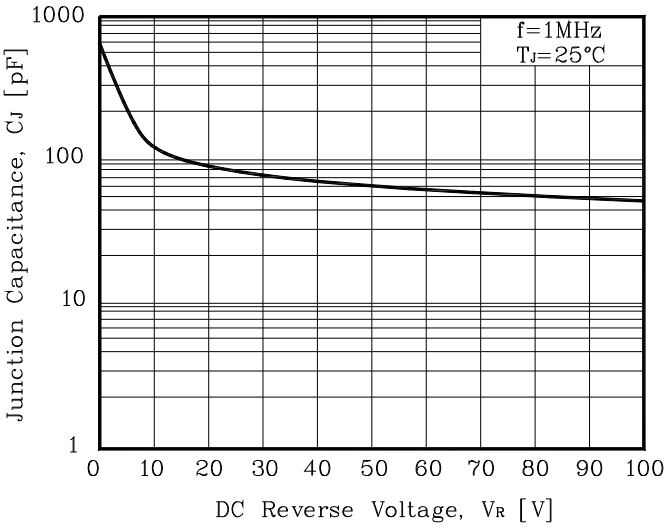
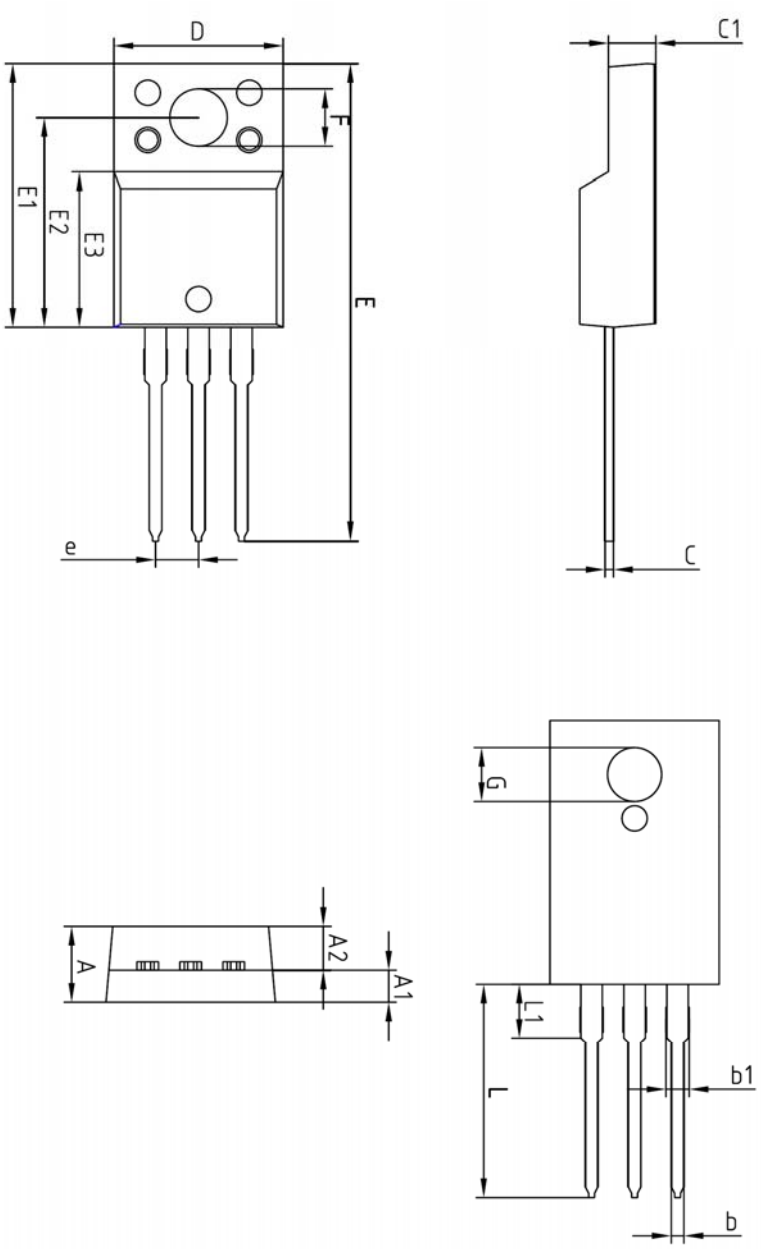


Fig. 6) Typical Junction Capacitance (Per Diode)



Package Outline Dimension



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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