

Schottky Barrier Rectifier

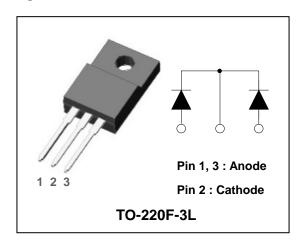
DUAL COMMON CATHODE SCHOTTKY RECTIFIER

Features

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

Applications

- Power supply Output rectification
- Converter
- Free-wheeling diode
- Reverse battery protection
- Power inverters



Product Characteristics

I _{F(AV)}	2 X 5A
V_{RRM}	80V
V _{FM} at 125℃	0.65V
I _{FSM}	120A

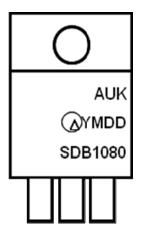
Description

The SDB1080PI has two schottky barriers arranged in a common cathode configuration. Typical applications are in switching power supplies, converters, free-wheeling diodes, and reverse battery protection.

Ordering Information

Device	Marking Code	Package	Packaging	
SDB1080PI	SDB1080	TO-220F-3L	Tube	

Marking Information



AUK = Manufacture Logo

 Δ = Control Code of Manufacture

YMDD = Date Code Marking

-. Y = Year Code (ex: 0 = 2010)

-. M = Monthly Code (ex: April = 4)

-. D = Daily Code (01~31)

SDB1080 = Specific Device Code

KSD-D00036-000

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	80	٧	
Maximum average forward rectified current	per diode	,	5	А	
	total device	I _{F(AV)}	10		
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load per diode		I _{FSM}	120	Α	
Storage temperature range		T _{stg}	-45℃ to +150℃	${\mathbb C}$	
Maximum operating junction temperature		T _j	150	$^{\circ}$ C	

Thermal Characteristics

Characteristic		Symbol	Value	Unit
Maximum thermal resistance junction to case	per diode	D	5.0	°C/W
	total device	$R_{\text{th(j-c)}}$	4.5	

Electrical Characteristics (Per Diode)

Characteristic	Symbol	Test Condition		Min.	Тур.	Max.	Unit
Peak forward voltage drop	V _{FM} ⁽¹⁾	I _{FM} = 5A	T _j =25℃	ı	ı	0.75	V
			T _j =125℃	-	-	0.65	٧
Davoras laskaga surrant	I _{RM} ⁽¹⁾	$V_R = V_{RRM}$	T _j =25℃	-	-	0.3	mA
Reverse leakage current			T _j =125℃	-	-	50	mA
Junction capacitance	C _j	$V_R = 5V_{DC}$, f=1MHz		-	150	-	pF

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

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Rating and Characteristic Curves

Fig. 1) Typical Forward Characteristics (Per diode)

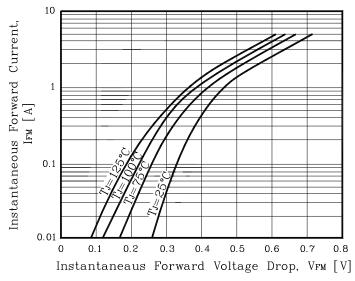


Fig. 2) Typical Reverse Characteristics (Per diode)

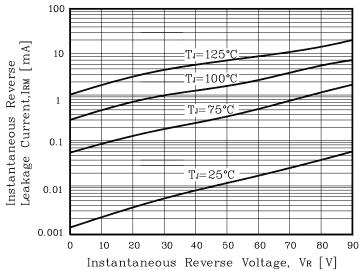


Fig. 3) Maximum Forward Derative Curve

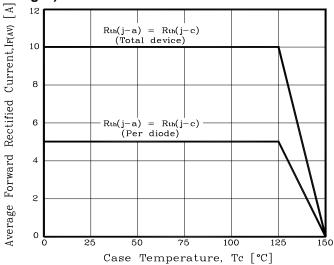


Fig. 4) Forward Power Dissipation (Per diode)

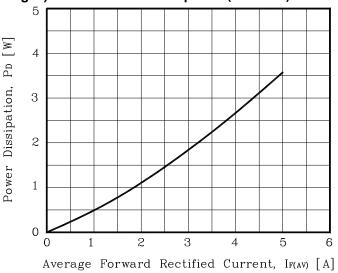


Fig. 5) Maximum Non-Repetitive Peak Forward Surge Current (Per diode)

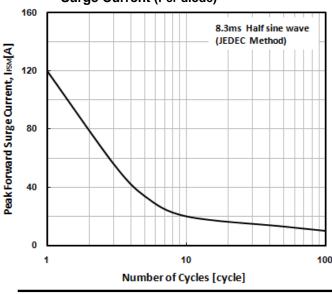
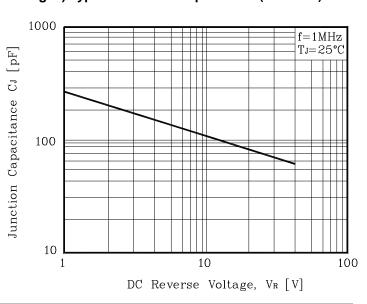
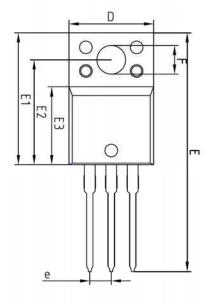


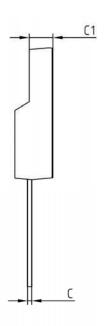
Fig. 6) Typical Junction Capacitance (Per diode)

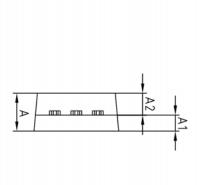


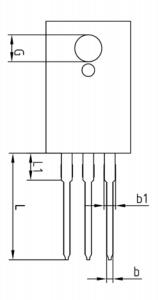
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Package Outline Dimension









SYMBOL	MINIMUM	MILLIMETER NOMINAL	MAXIMUM	NOTE
Α	-	-	4.60	
A1	2.45	2.50	2.55	
A2	1.95	2.00	2.05	
Ь	0.65	0.75	0.85	
b1	1.07	1.27	1.47	
С	0.40	0.50	0.60	
C1	2.70	2.80	2.90	
D	9.90	10.00	10.10	
Ε	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	
е	2.54 BSC			
L	12.40	_	13.00	
L1				

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