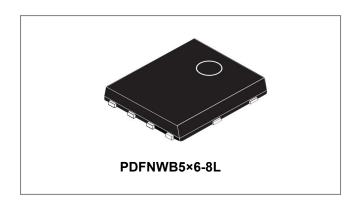


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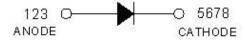
# SDUR2060DJF SCHOTTKY RECTIFIER



#### **Features**

- Ultra-Fast switching
- High current capability
- Low reverse leakage current
- High surge current capability
- Thin package: 1 mm
- Terminals finish: 100% Pure Tin
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

# **Circuit Diagram**



## **Applications**

- Switching power supply
- Converters
- Free-Wheeling diodes
- Reverse battery protection

### **Maximum Ratings:**

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	-	600	V
Average Rectified Forward Current	I <sub>F (AV)</sub>	50% duty cycle @T <sub>C</sub> =80°C, rectangular wave form	20	Α
Peak One Cycle Non-Repetitive Surge Current	I <sub>FSM</sub>	8.3ms, Half Sine pulse, T <sub>C</sub> = 25 °C	110	А

# **Electrical Characteristics:**

Characteristics	Symbol	Condition	Тур.	Max.	Units
Forward Voltage Drop*	$V_{F1}$	@20A, Pulse, T <sub>J</sub> = 25°C	1.60	2.0	V
Reverse Current*	I <sub>R1</sub>	$@V_R = \text{rated } V_R$ $T_J = 25^{\circ}C$	0.08	5	μA
Reverse Recovery Time	t <sub>rr</sub>	$I_F$ =500mA, $I_R$ =1A,and $I_m$ =250mA	40	50	ns

Pulse width < 300  $\mu$ s, duty cycle < 2%



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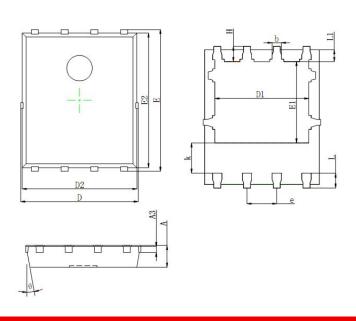




# **Thermal-Mechanical Specifications:**

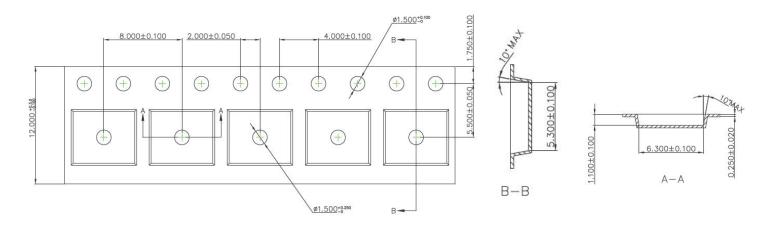
Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	$T_J$	-	-55 to +150	°C
Storage Temperature	$T_{stg}$	-	-55 to +150	°C
Typical Thermal Resistance Junction to Case	R₀Jc	DC operation	2.5	°C/W
Approximate Weight	wt	-	0.095	g

# **Mechanical Dimensions PDFNWB5×6-8L**



SYMBOL	Millimeters		Inches		
STWIDOL	Min.	Max.	Min.	Max.	
Α	0.900	1.000	0.035	0.039	
A3	0.254 REF.		0.010REF.		
D	4.944	5.096	0.195	0.201	
E	5.974	6.126	0.235	0.241	
D1	3.910	4.110	0.154	0.162	
E1	3.375	3.575	0.133	0.141	
D2	4.824	4.976	0.190	0.196	
E2	5.674	5.826	0.223	0.229	
k	1.190	1.390	0.047	0.055	
b	0.350	0.450	0.014	0.018	
e	1.270 TYP.		0.050 TYP.		
L	0.559	0.711	0.022	0.028	
L1	0.424	0.576	0.017	0.023	
Н	0.574	0.726	0.023	0.029	
Θ	10°	12°	10°	12°	

# Carrier Tape Specification PDFNWB5×6-8L(mm)



- China Germany Korea Singapore United States
  - http://www.smc-diodes.com sales@ smc-diodes.com •



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### **Ordering Information**

Device	Package	Shipping	
SDUR2060DJF	PDFNWB5×6-8L (Pb-Free)	3000 pcs / reel	
SDUR2060DJFTR	PDFNWB5×6-8L (Pb-Free)	3000 pcs / reel	

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

## **Marking Diagram**



Where XXXXX is YYWWL

 SDUR
 = Device Type

 20
 = Forward Current (20A)

 60
 = Reverse Voltage (60)

 DJF
 = Package type

 SSG
 = SSG

 YY
 = Year

 WW
 = Week

 L
 = Lot Number

Cautions: Molding resin

Epoxy resin UL:94V-0

#### DISCLAIMER:

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- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
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