

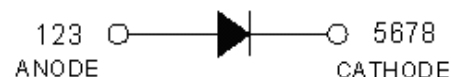
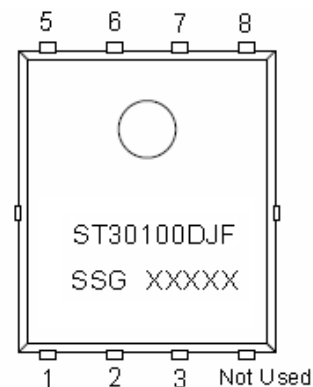
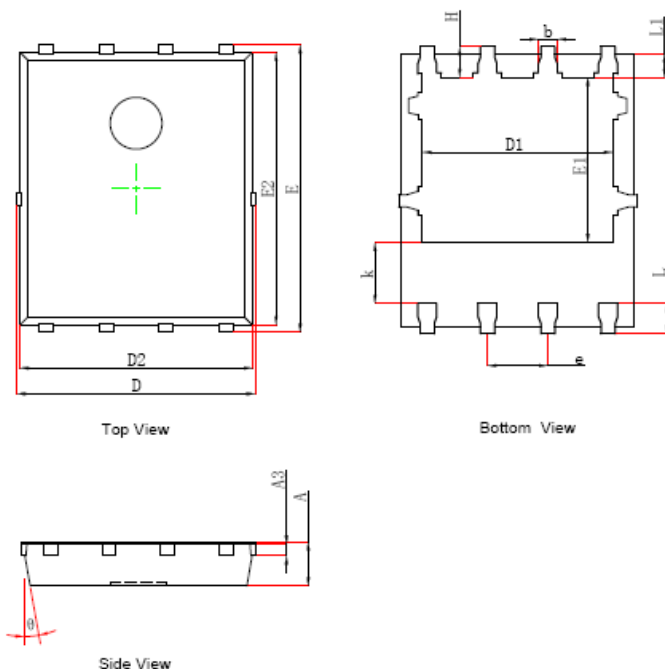
ST30100DJF POWER SCHOTTKY RECTIFIER

Applications:

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

Features:

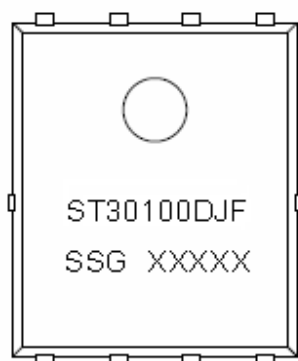
- Ultralow forward voltage drop
- Very small conduction losses
- Negligible switching losses
- Extremely fast switching
- Low thermal resistance
- Avalanche capability specified
- Thin package: 1 mm
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request


Mechanical Dimensions: In mm/Inches


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.000	0.035	0.039
A3	0.254REF.		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	1.270TYP.		0.050TYP.	
L	0.559	0.711	0.022	0.028
L1	0.424	0.576	0.017	0.023
H	0.574	0.726	0.023	0.029
θ	10°	12°	10°	12°

PDFNWB5×6-8L

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Marking Diagram:


Where XXXXX is YYWWL

ST	= Device Type
30	= Forward Current (30A)
100	= Reverse Voltage (100V)
DJF	= Package type
SSG	= SSG
YY	= Year
WW	= Week
L	= Lot Number

Cautions: Molding resin
 Epoxy resin UL: 94V-0

Ordering Information:

Device	Package	Shipping
ST30100DJF	PDFNWB5x6-8L (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.

Maximum Ratings:

Characteristics	Symbol	Condition	Max.	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM} V_{RWM} V_R	-	100	V
Average Forward Current	$I_{F(AV)}$	50% duty cycle @ $T_C=100^\circ\text{C}$, rectangular wave form	30	A
Peak One Cycle Non-Repetitive Surge Current (per leg)	I_{FSM}	8.3 ms, half Sine pulse	300	A



ST30100DJF

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Electrical Characteristics:

Characteristics	Symbol	Condition	Max.	Units
Forward Voltage Drop*	V _{F1}	@ 30A, Pulse, T _J = 25 °C	0.75	V
	V _{F2}	@ 30A, Pulse, T _J = 125 °C	0.70	V
Reverse Current *	I _{R1}	@V _R = rated V _R T _J = 25 °C	1	mA
	I _{R2}	@V _R = rated V _R T _J = 125 °C	75	mA

* Pulse Width < 300µs, Duty Cycle <2%

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	R _{θJC}	DC operation	2.6	°C/W
Approximate Weight	wt	-	0.095	g
Case Style	PDFNWB5x6-8L			

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