

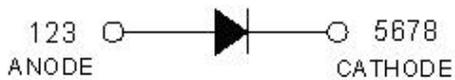
ST20200DJF SCHOTTKY RECTIFIER



Features

- Ultralow forward voltage drop
- Very small conduction losses
- Negligible switching losses
- Extremely fast switching
- Low thermal resistance
- Avalanche capability specified
- Terminals finish: 100% Pure Tin
- 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

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_{RRM} V_{RWM} V_R	-	200	V
Average Rectified Forward Current	$I_{F(AV)}$	$T_C=70^{\circ}\text{C}$, In DC	20	A
Peak One Cycle Non-Repetitive Surge Current	I_{FSM}	8.3ms, Half Sine pulse, $T_C = 25^{\circ}\text{C}$	250	A

Electrical Characteristics:

Characteristics	Symbol	Condition	Typ.	Max.	Units
Forward Voltage Drop*	V_{F1}	@ 20A, Pulse, $T_J = 25^{\circ}\text{C}$	0.86	0.95	V
	V_{F2}	@ 20A, Pulse, $T_J = 125^{\circ}\text{C}$	0.72	0.80	V
Reverse Current*	I_{R1}	@ $V_R = \text{rated } V_R$ $T_J = 25^{\circ}\text{C}$	0.04	300	μA
	I_{R2}	@ $V_R = \text{rated } V_R$ $T_J = 125^{\circ}\text{C}$	0.3	36	mA
Junction Capacitance	C_T	@ $V_R = 5\text{V}$, $T_C = 25^{\circ}\text{C}$, $f_{SIG} = 1\text{MHz}$	294	-	pF

* Pulse width < 300 μs , duty cycle < 2%

Thermal-Mechanical Specifications:

Characteristics	Symbol	Condition	Specification	Units
Junction Temperature	T_J	-	-55 to +150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-	-55 to +150	$^{\circ}\text{C}$
Typical Thermal Resistance Junction to Case	$R_{\theta\text{JC}}$	DC operation	2.5	$^{\circ}\text{C}/\text{W}$
Approximate Weight	wt	-	0.095	g

Ratings and Characteristics Curves

Figure 1 Typical Forward Characteristics

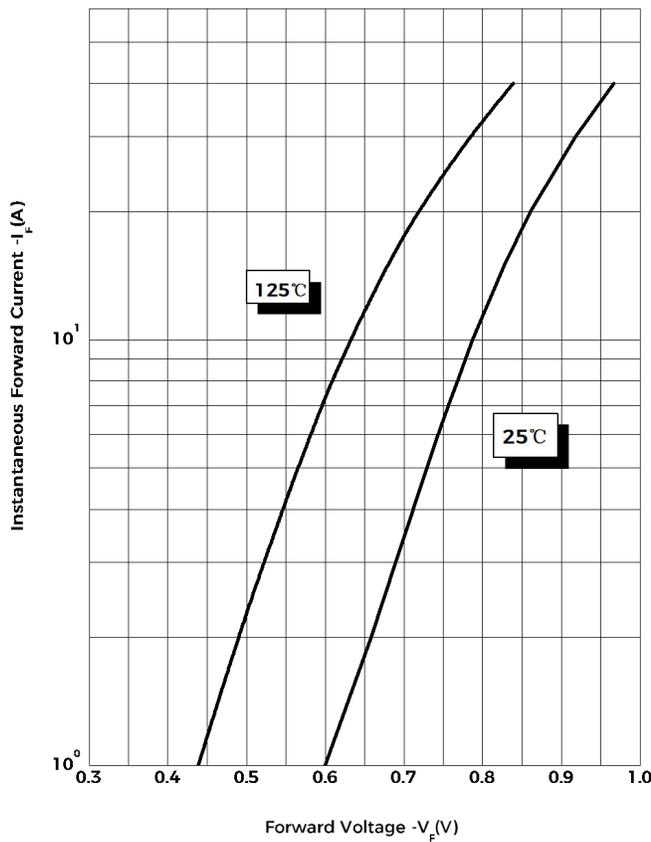


Figure 2 Typical Reverse Characteristics

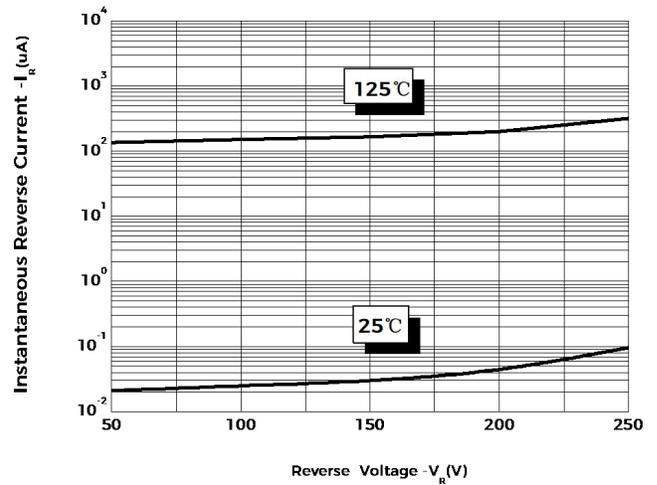
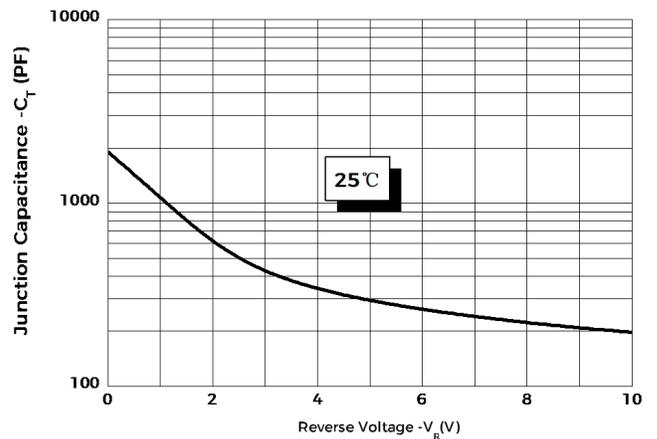
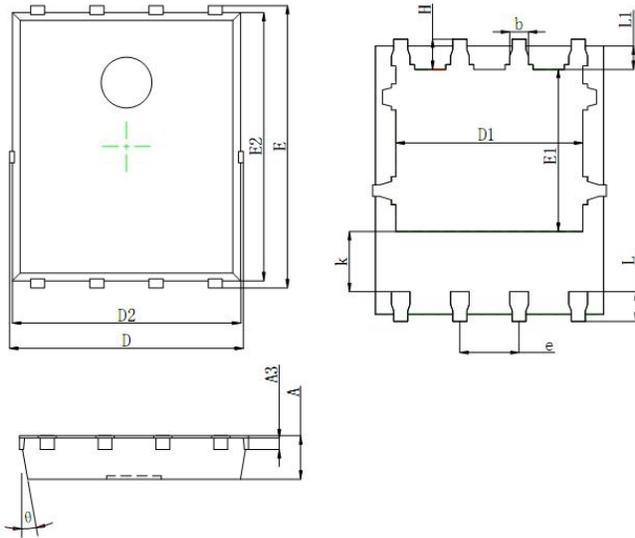


Figure 3 Typical Junction Capacitance

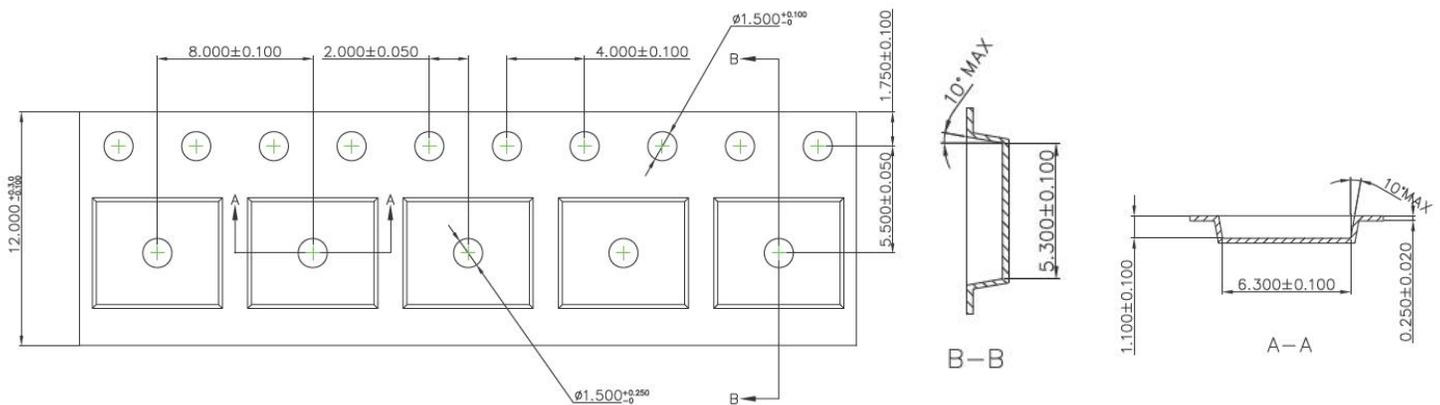


Mechanical Dimensions PDFNWB5×6-8L



SYMBOL	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.000	0.035	0.039
A3	0.254 REF.		0.010 REF.	
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
H	0.574	0.726	0.023	0.029
θ	10°	12°	10°	12°

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



Ordering Information

Device	Package	Shipping
ST20200DJF	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 XXXX is YYWWL

- ST = Device Type
- 20 = Forward Current (20A)
- 200 = Reverse Voltage (200V)
- DJF = Package type
- SSC = SSC
- YY = Year
- WW = Week
- L = Lot Number

Cautions: Molding resin
Epoxy resin UL94V-0

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