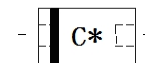


**WSB5539N**
**0.5A, Schottky Barrier Diode**
[Http://www.willsemi.com](http://www.willsemi.com)
**Features**

- Low forward voltage
- 0.5A Average rectified forward current
- Peak forward current tested
- Standard products are Pb-free and Halogen-free


**DFN1006-2L**

**Circuit**

**Marking**
**Absolute maximum ratings**

Parameter	Symbol	Value	Unit
Reverse voltage (repetitive peak)	$V_{RM}$	40	V
Reverse voltage (DC)	$V_R$	40	V
Average rectified forward current	$I_O$	0.5	A
Peak forward current <sup>(1)</sup>	$I_{FSM}$	3	A
Junction temperature	$T_J$	150	°C
Operating temperature	$T_{opr}$	-40 ~ 85	°C
Storage temperature	$T_{stg}$	-55 ~ 150	°C

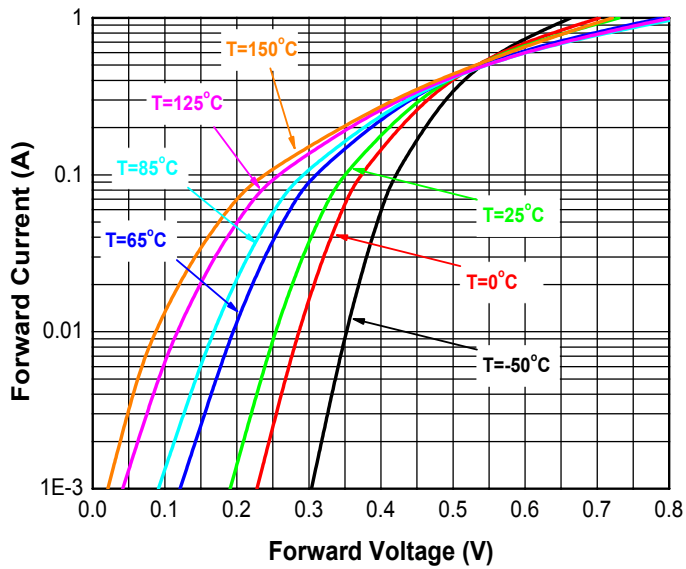
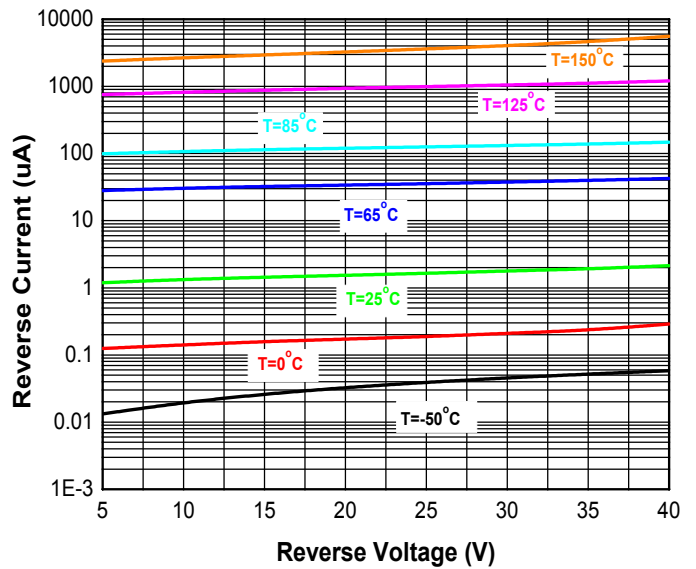
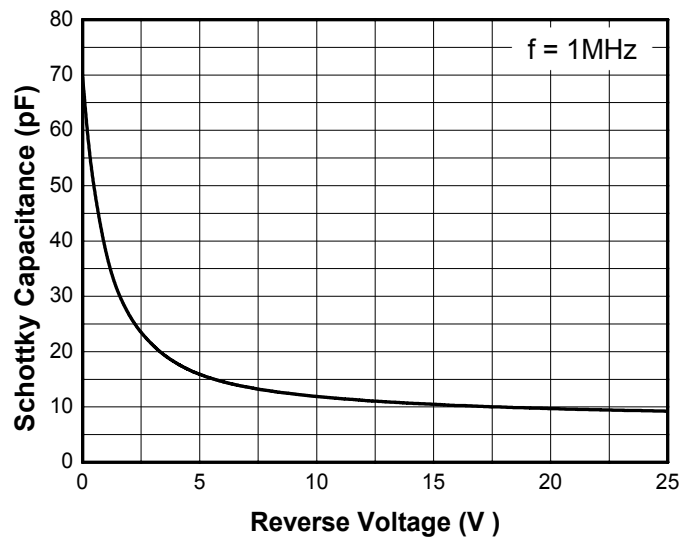
**Electronics characteristics (T<sub>A</sub>=25°C)**

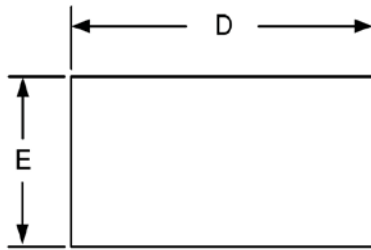
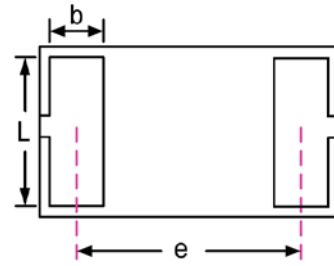
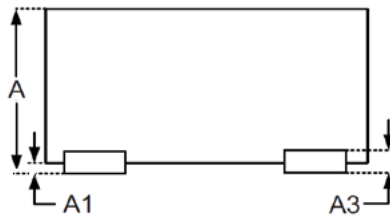
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage	$V_F$	$I_F=0.5A$	-	0.53	0.63	V
Reverse current	$I_R$	$V_R=40V$	-	3	100	uA
Junction capacitance	$C_J$	$V_R=4V, F=1MHz$	-	20		pF
Thermal resistance	$R_{\theta(j-a)}$	Junction to ambient			500	K/W

**Order Informations**

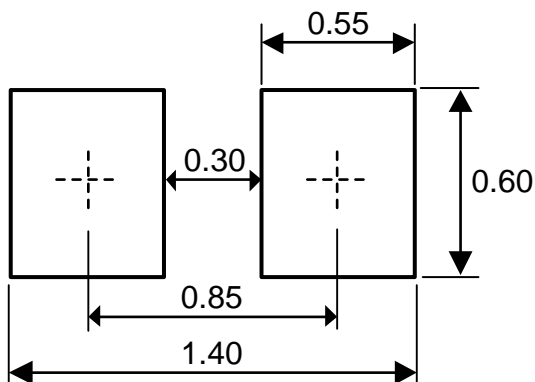
Device	Package	Marking	Shipping
WSB5539N-2/TR	DFN1006-2L	C* <sup>(2)</sup>	10000/Reel&Tape

**Note 1 : Pulse Width=8.3ms, Single Pulse**
**Note 2 : \* = Month code (A~Z); C = Device code**

**Typical characteristics (Ta=25°C, unless otherwise noted)**

**Forward voltage vs. Forward current**

**Reverse current vs. Reverse voltage**

**Junction capacitance vs. Reverse voltage**

**Package outline dimensions**
**DFN1006-2L**

**Top View**

**Bottom View**

**Side View**

Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	0.40	-	0.50
A1	0.00	-	0.05
A3	0.125 Ref.		
D	0.95	1.00	1.05
E	0.55	0.60	0.65
b	0.20	0.25	0.30
L	0.45	0.50	0.55
e	0.65 Typ.		

**Recommend land pattern (Unit: mm)**

**Notes:**

This recommended land pattern is for reference purposes only. Please consult your manufacturing group to ensure your PCB design guidelines are met.