

**WSB5551M**
**1A Low leakage current Schottky Barrier Diode**
[Http://www.willsemi.com](http://www.willsemi.com)
**Features**

- Ultra low reverse leakage current
- Extremely low thermal resistance
- High current capability


**SMA (DO-214AC)**

**Circuit**

**Marking**
**Applications**

- Switching circuit
- Middle current rectification

**Absolute maximum ratings**

Parameter	Symbol	Value	Unit
Reverse voltage (repetitive peak)	$V_{RRM}$	40	V
Reverse voltage (DC)	$V_R$	40	V
Average rectified forward current (DC)	$I_O$	1.0	A
Forward Peak Surge Current <sup>(1)</sup>	$I_{FSM}$	40	A
Junction temperature	$T_J$	-55 ~ 150	°C
Operating temperature	$T_{opr}$	-55 ~ 150	°C
Storage temperature	$T_{stg}$	-55 ~ 150	°C

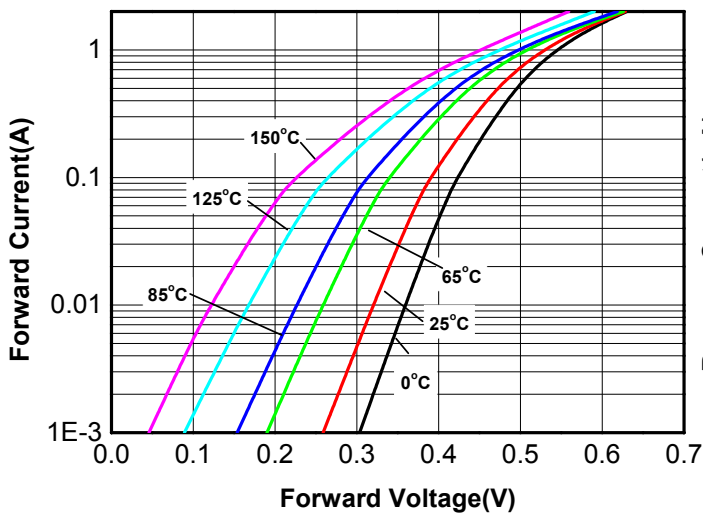
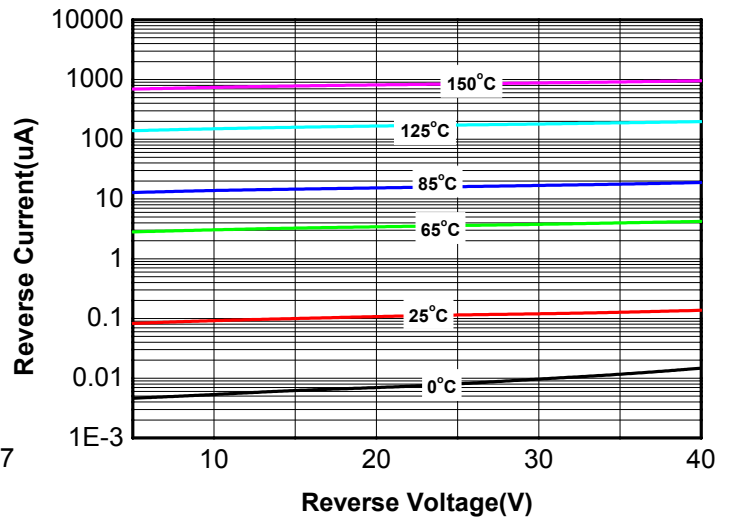
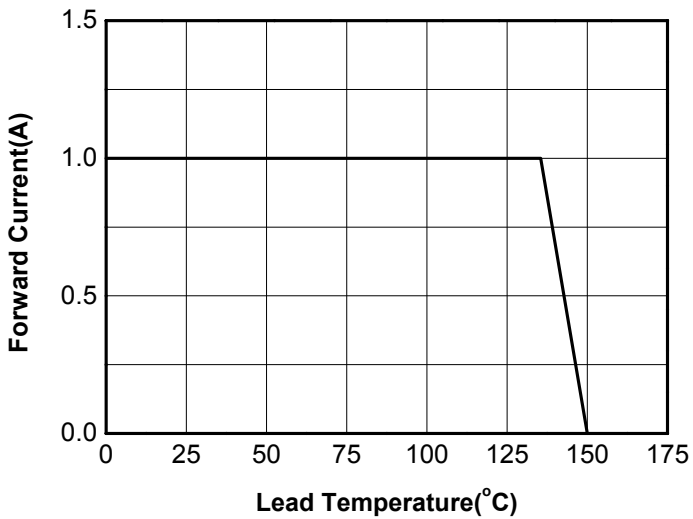
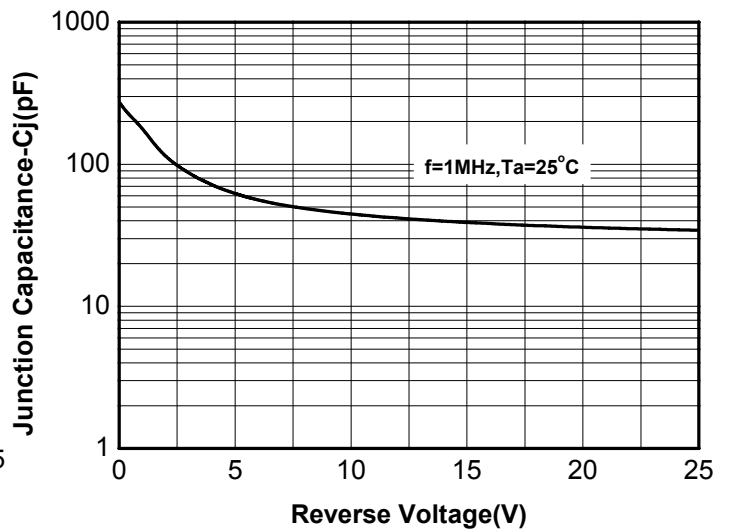
**Electronics characteristics ( $T_A=25^\circ\text{C}$ )**

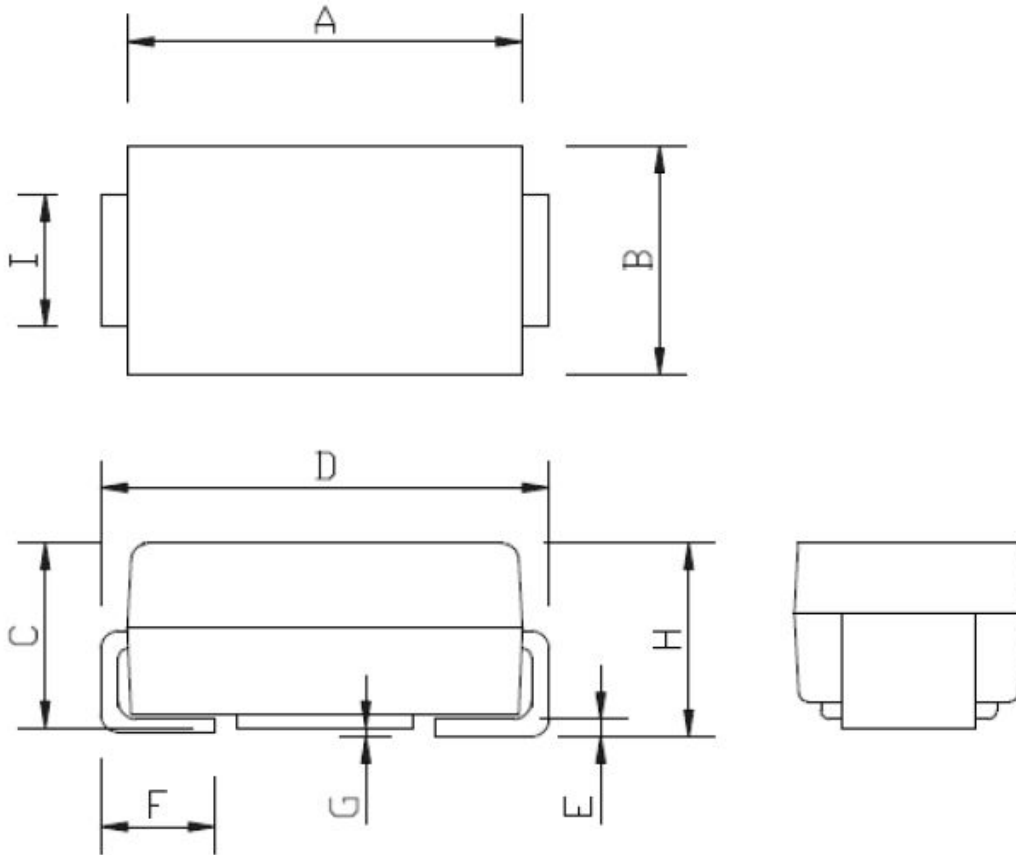
Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward voltage <sup>(2)</sup>	$V_F$	$I_F=1\text{A}$		0.52	0.60	V
Reverse current	$I_R$	$V_R=40\text{V}$		0.2	10	uA
Junction capacitance	$C_J$	$V_R=4\text{V}, F=1\text{MHz}$		71		pF
Thermal resistance	$R_{\theta(J-L)}$	Junction to Lead (Fig.2)		16		K/W

**Order Informations**

Device	Package	Marking	Shipping
WSB5551M-2/TR	SMA (DO-214AC)	DFB** <sup>(3)</sup>	5000/Reel&Tape

**Note1: Pulse width=8.3ms, single pulse;**
**Note2: Single Pulse, test  $T_p=380\mu\text{s}$ ;**
**Note3: \*\* =Month code (AA~ZZ); DFB =Device code;**

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

**Fig.1 Forward voltage vs. Forward current**

**Fig.2 Reverse current vs. Reverse voltage**

**Fig.3 Maximum Forward Current Derating Curve**

**Fig.4 Junction capacitance vs. Reverse voltage**

**Package outline dimensions**
**SMA (DO-214AC)**


Symbol	Dimensions in millimeter	
	Min.	Max.
A	4.25	4.65
B	2.40	2.80
C	1.85	2.15
D	4.85	5.35
E	0.10	0.30
F	0.90	1.50
G	0.20 Max.	
H	1.90	2.30
I	1.35	1.65