



#### GP5819W Schottky Barrier Diode

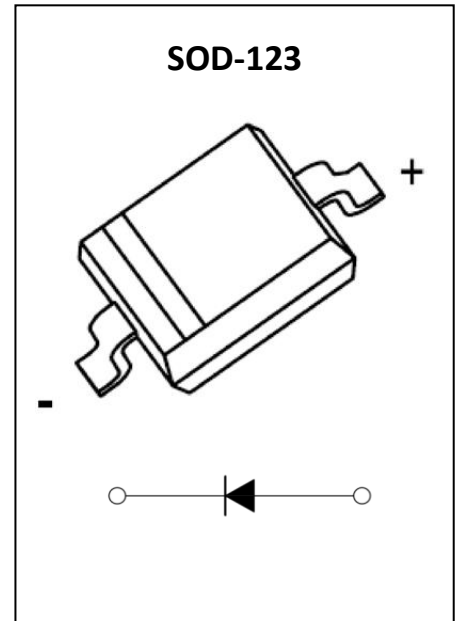
##### Feature

- Small power mold type
- Low VF
- Low IR
- High reliability

##### Application

- High frequency inverters
- Free wheeling
- Polarity protection applications

##### MARKING:



#### ABSOLUTE MAXIMUM RATINGS ( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

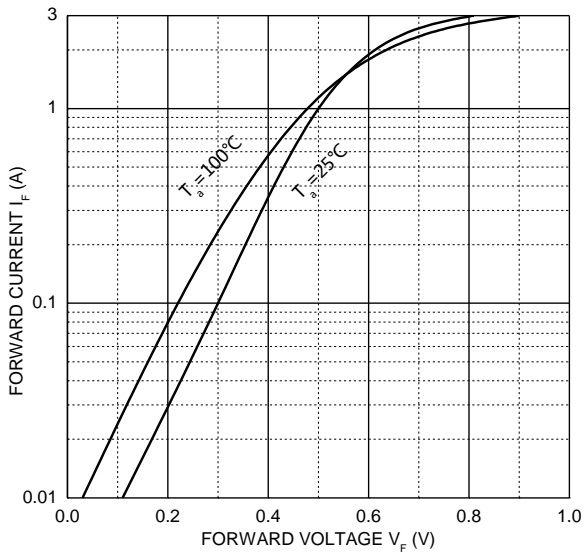
Parameter	Symbol	Value	Unit
DC reverse voltage	$V_R$	40	V
Mean rectifying current	$I_O$	1	A
Non-repetitive Peak Forward Surge Current @ $t=8.3\text{ms}$	$I_{FSM}$	15	A
Power Dissipation	$P_D$	0.35	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	285	$^{\circ}\text{C/W}$
Junction Temperature	$T_J$	125	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 ~ +150	$^{\circ}\text{C}$

#### ELECTRICAL CHARACTERISTICS ( $T_a=25^{\circ}\text{C}$ unless otherwise noted)

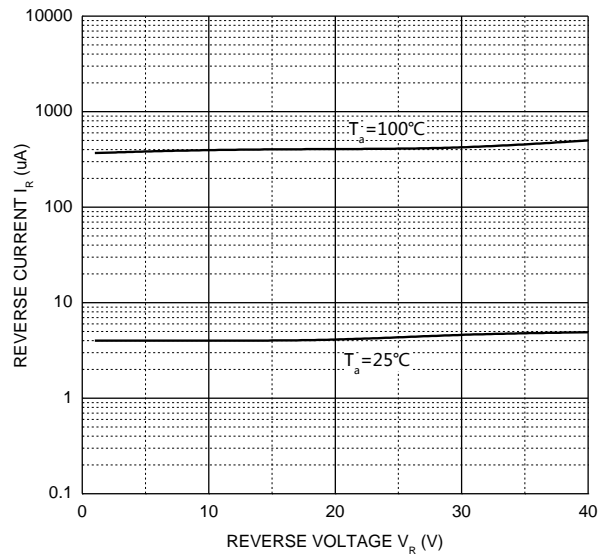
Parameter	Symbol	Test Condition	Min	Type	Max	Unit
Reverse voltage	$V_{BR}$	$I_R = 250\mu\text{A}$	40	50		V
Forward voltage	$V_F$	$I_F = 0.5\text{A}$	0	0.42	0.50	V
		$I_F = 1.0\text{A}$	0	0.48	0.55	V
		$I_F = 3.0\text{A}$	0	0.80	0.90	V
Reverse current	$I_R$	$V_R = 40\text{V}$		5	50	$\mu\text{A}$
Diode capacitance	$C_D$	$V_R = 4\text{V}, f = 1\text{MHz}$		50		pF

**Typical Characteristics**

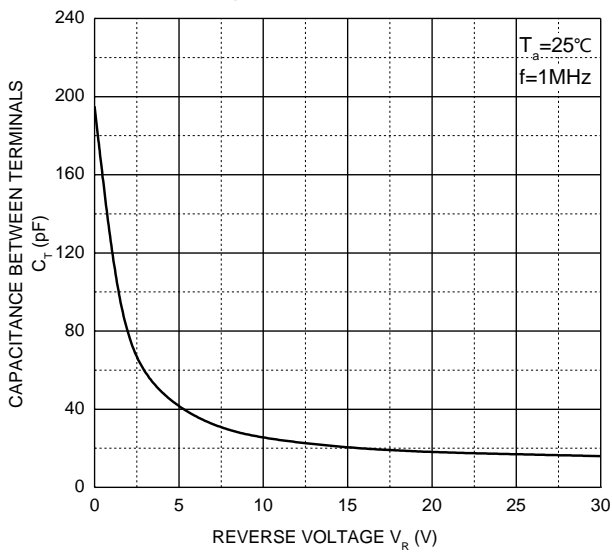
**Forward Characteristics**



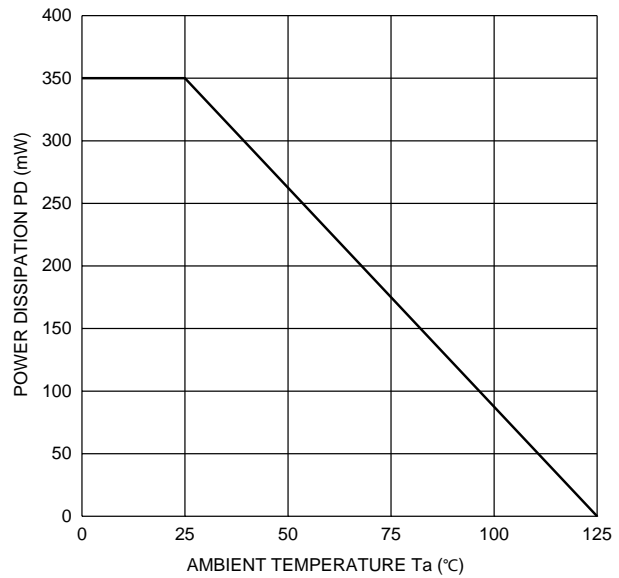
**Reverse Characteristics**

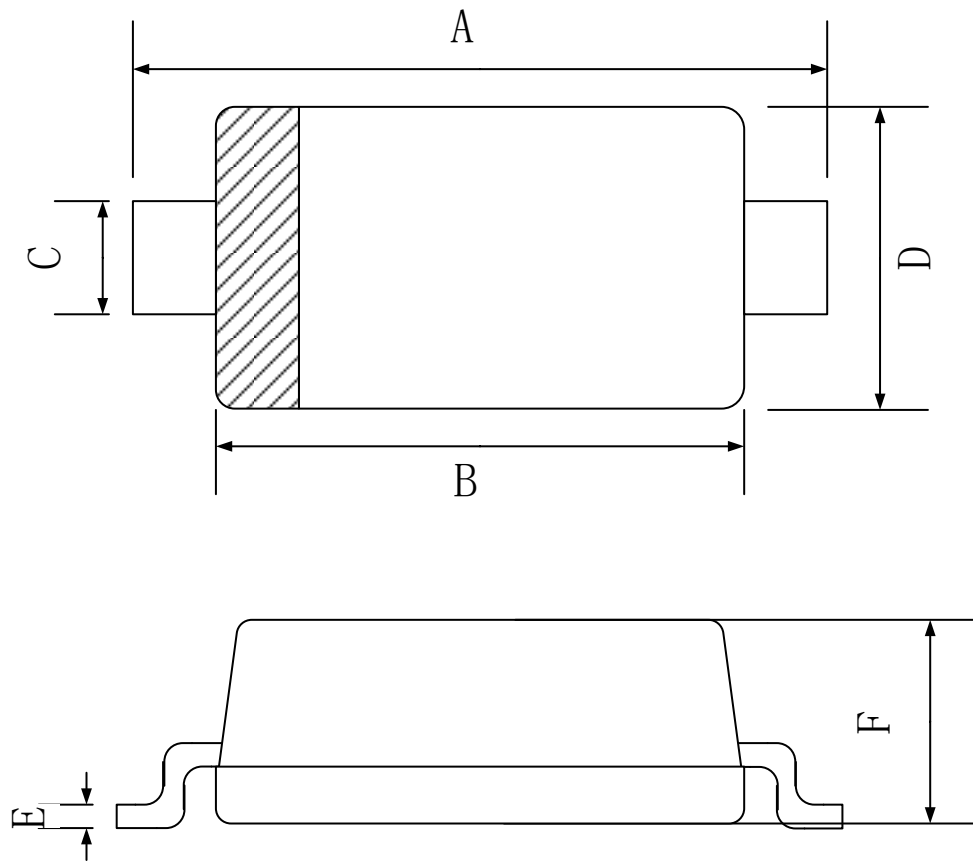


**Capacitance Characteristics**



**Power Derating Curve**

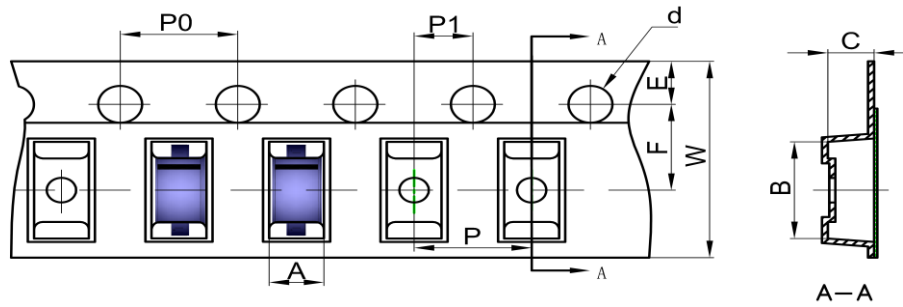


**SOD-123 Package Outline Dimensions**


Symbol	Dimensions In Millimeters		
	Min.	Typ.	Max.
A	3.45	3.65	3.85
B	2.55	2.65	2.75
C	0.45	0.55	0.65
D	1.50	1.60	1.70
E	0.09	0.105	0.12
F	0.95	1.15	1.35

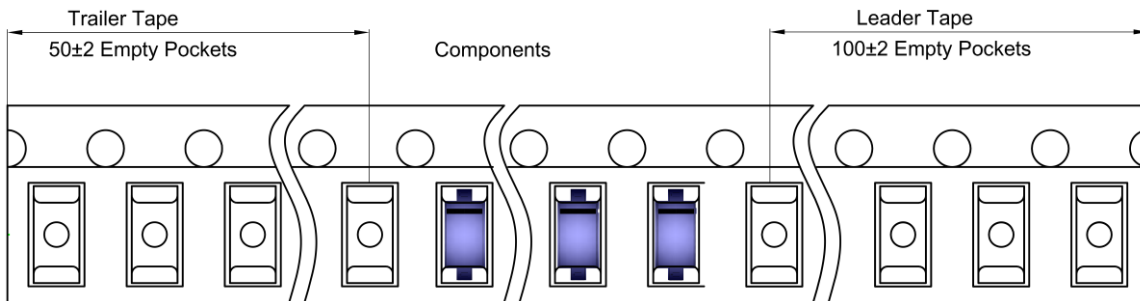
## SOD-123 Tape and Reel

SOD-123 Embossed Carrier Tape

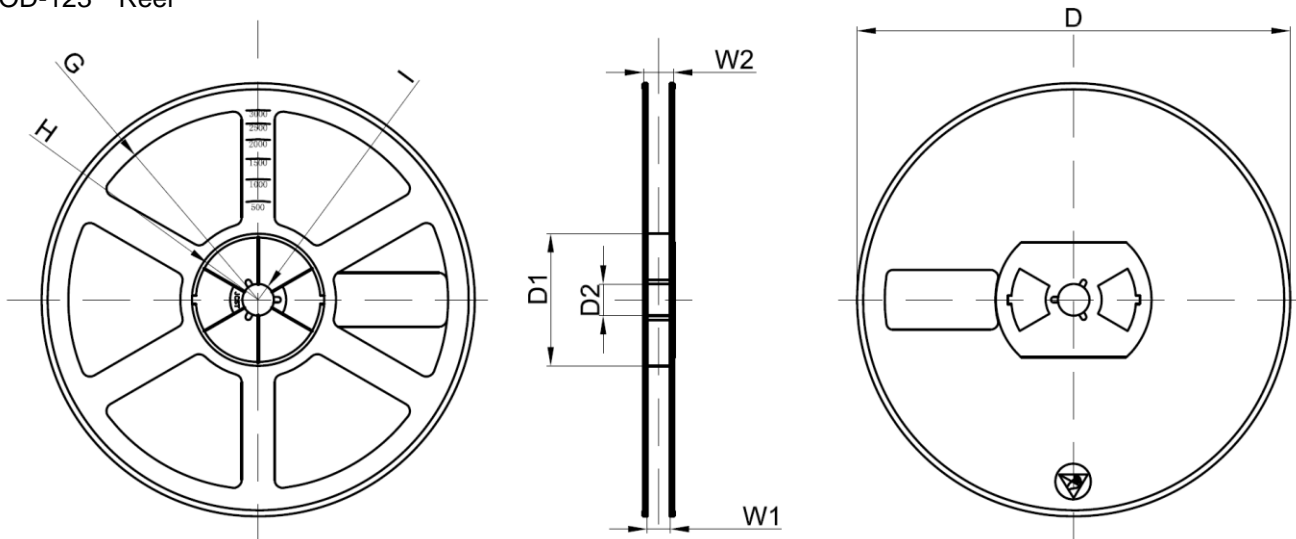


Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOD-123	1.85	3.95	1.57	Φ1.55	1.75	3.50	4.00	4.00	2.00	8.00

SOD-123 Tape Leader and Trailer



SOD-123 Reel



Dimensions are in millimeter								
Reel Option	D	D1	D2	G	H	I	W1	W2
7` Dia	Φ178.00	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30

Reel	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
3000pcs	7 inch	45,000pcs	203×203×195	180,000pcs	438×438×220	