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1N5819WT
Schottky Barrier Rectifiers

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Features

- Multilayer Metal -Silicon Potential Structure
- High Current Capability, High Efficiency
- High Junction Temperature Capability
- Low Leakage Current
- RoHs Product

Applications

- Surface mount schottky barrier rectifier
- Buck and Boost dc−dc Converters
- Low Voltage High Frequency Switching Power Supply
- Low Voltage High Frequency Invers Circuit
- Low Voltage Continued Circuit and Protection Circuit

SOD-523

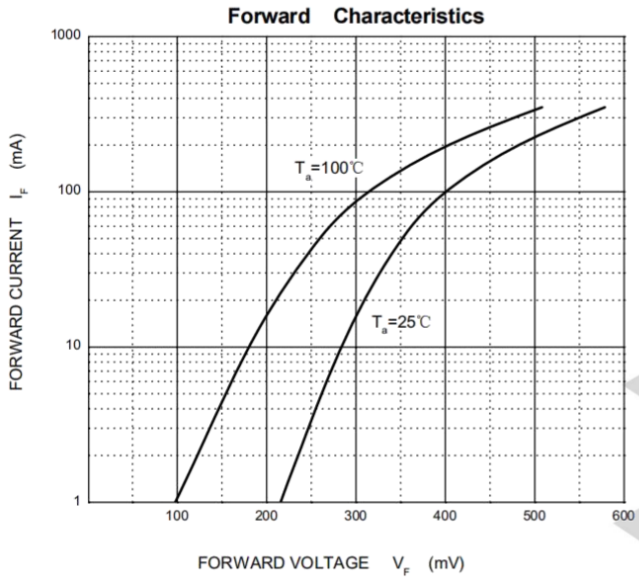
Absolute Maximum Ratings

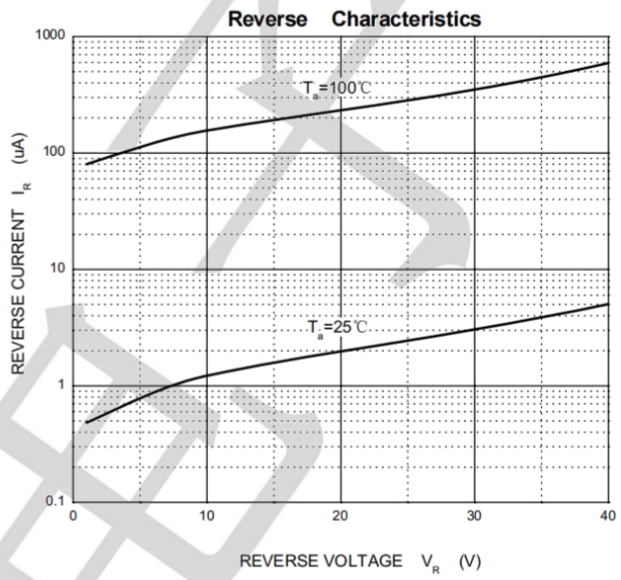
Parameter	Symbol	Value	Unit
Reverse Voltage	V_R, V_{RM}, V_{RWM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Forward Continuous Current	I_{FM}	350	mA
Non-Repetitive Peak Forward Surge Current@t=8.3ms	I_{FSM}	2.0	A
Power Dissipation	P_D	150	mW
Typical Thermal Resistance per leg @TA = 25°C	$R_{\theta JA}$	667	°C/W
Operating Junction Temperature Range	T_J	125	°C
Storage Temperature Range	T_{STG}	−55 to +150	°C

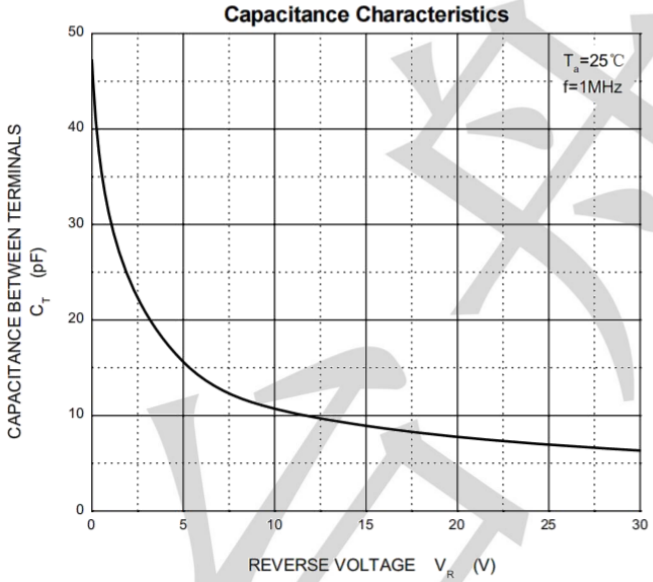
Electrical Characteristics (TA=25°C unless otherwise specified)

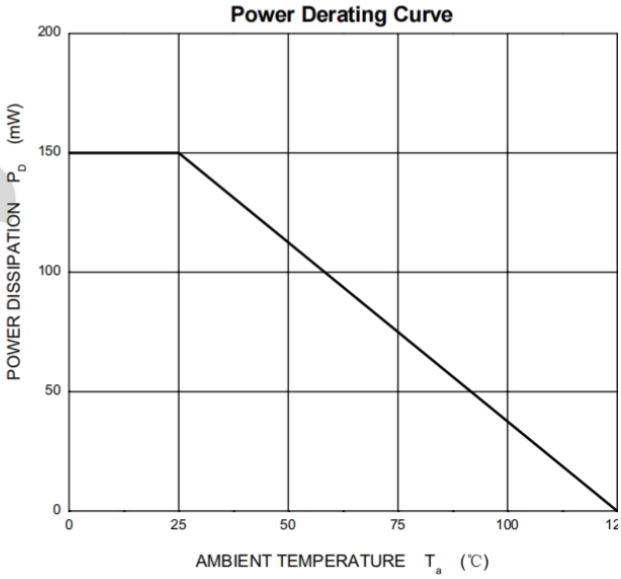
Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	IF=100uA	40	--	--	V
Reverse current	I_R	V_R=30V	--	--	5	uA
		V_R=20V	--	--	2	uA
		V_R=10V	--	--	1	uA
Forward voltage	V_F	I_F=1mA	--	0.27	--	V
		I_F=5mA	--	0.32	--	V
		I_F=20mA	--	--	0.37	V
		I_F=200mA	--	--	0.6	V
Total Capacitance	C_{tot}	VR = 0 V, f = 1 MHz	--	50	--	pF
Reverse recovery time	t_{rr}	I_F= I_R=200mA, I_{rr}=0.1×I_R, R_L=100Ω	--	10	--	ns

Typical Electrical Characteristic Curves



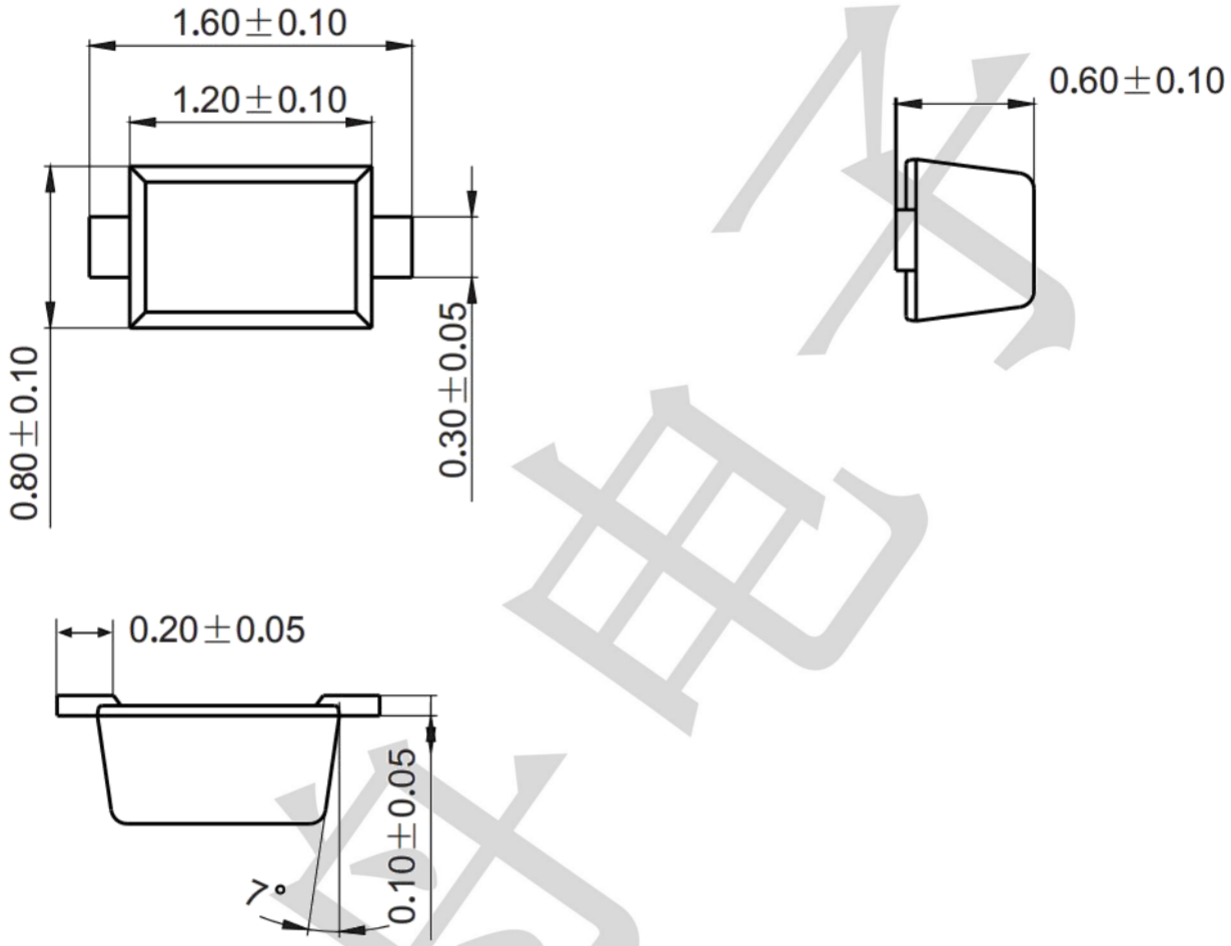






Package Outline Dimensions (unit: mm)

SOD-523



Mounting Pad Layout (unit: mm)