

Switching Diodes



FEATURES

- For surface mounted applications
- Fast reverse recovery time
- Ideal for automated placement

Maximum Ratings at 25 °C

Parameter	Symbols	1N4148WT	Units
Non-Repetitive Peak Reverse Voltage	V_{RM}	100	V
Reverse Voltage	V_R	75	V
Peak Repetitive Reverse Voltage	V_{RRM}		V
Working Peak Reverse Voltage	V_{RWM}		V
Average Rectified Output Current	I_O	150	mA
Non-repetitive Peak Forward Surge Current@t= 8.3ms	I_{FSM}	0.8	A
Power Dissipation	P_D	150	mW
Junction Temperature	T_j	150	°C
Storage Temperature	T_{stg}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbols	Test conditions	Min	Typ	Max	Units
Reverse voltage	$V_{(BR)}$	$I_R = 1\mu A$	75			V
Reverse current	I_R	$V_R = 75V$			1	uA
		$V_R = 20V$			25	nA
Forward voltage	V_F	$I_F = 1\text{ mA}$			0.715	V
		$I_F = 10\text{ mA}$			0.855	V
		$I_F = 50\text{ mA}$			1	V
		$I_F = 150\text{ mA}$			1.25	V
Total capacitance	C_{tot}	$V_R = 0V, f = 1\text{MHz}$			2	pF
Reverse recovery time	t_{rr}	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 * I_R, R_L = 100\Omega$			4	ns

Typical Characteristics

Fig.1 Power Derating Curve

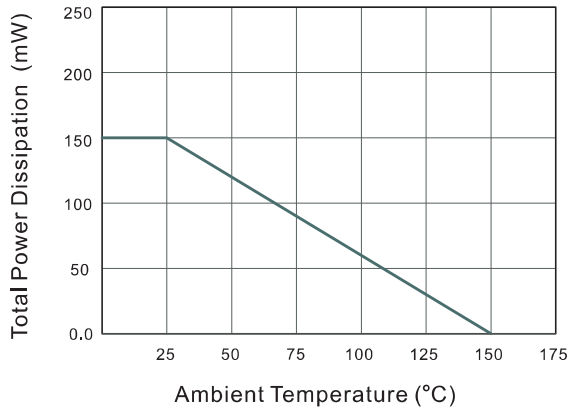


Fig.2 Typical Reverse Characteristics

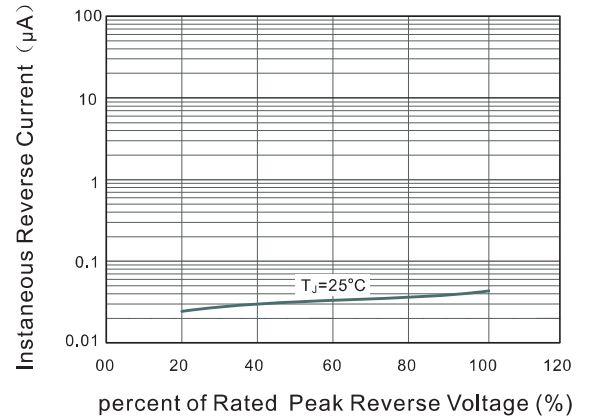


Fig.3 Typical Instantaneous Forward Characteristics

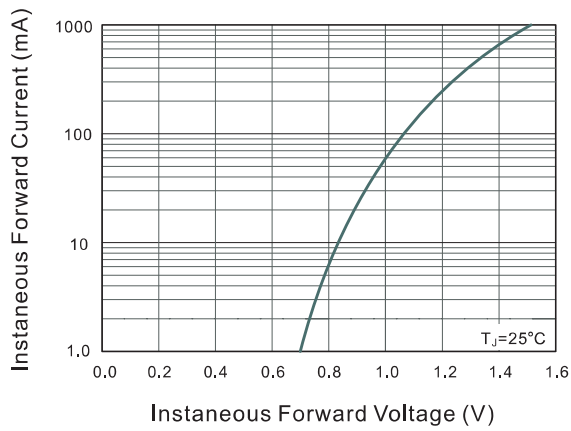
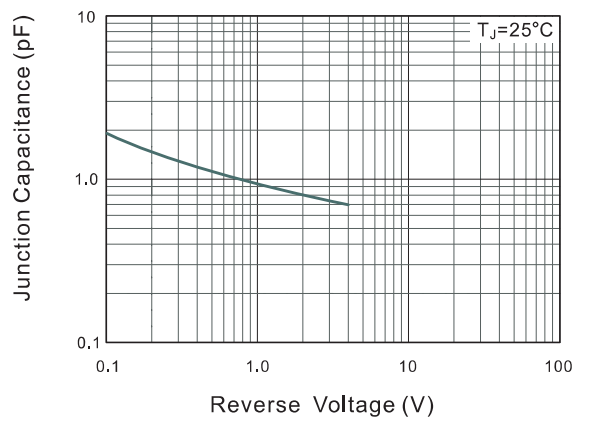


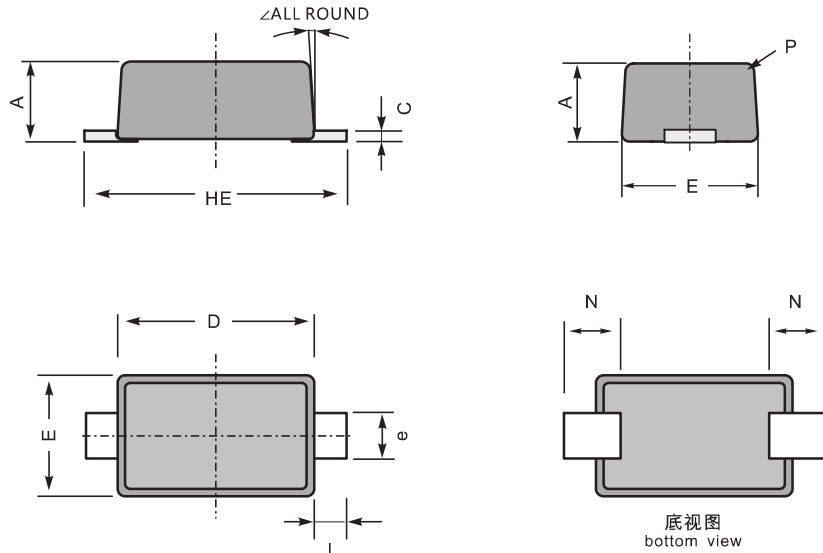
Fig.4 Typical Junction Capacitance



PACKAGE OUTLINE

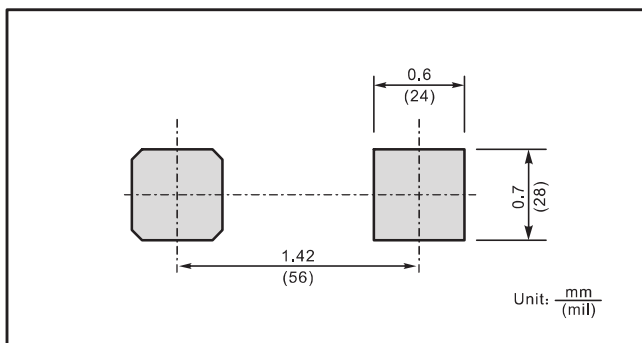
Plastic surface mounted package; 2 leads

SOD-523



UNIT		A	e	C	D	E	HE	N	L	P	∠
mm	max	0.77	0.35	0.15	1.30	0.99	1.70	0.35	0.2	R0.1	10° ± 1°
	min	0.51	0.25	0.08	1.10	0.75	1.50	ref	ref	ALL ROUND	
mil	max	30	14	6	51	39	67	14	8.0	R4.0	
	min	20	10	3	43	30	59	ref	ref	ALL ROUND	

The recommended mounting pad size



Marking

Type number	Marking code
1N4148WT	T4