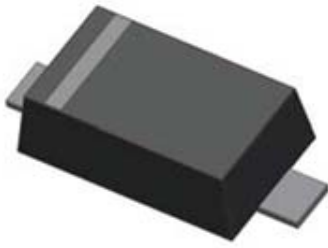


Small-Signal Fast Switching Diodes

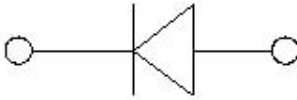
Features

Epoxy meets UL-94 V-0 flammability rating and halogen free
 Moisture Sensitivity Level 1
 V_R 100V
 I_{FAV} 150mA
 Part no. with suffix "Q" means AEC-Q101 qualified



Applications

Extreme fast switches
 Automotive



Mechanical Data

Case: SOD523
Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
Polarity: Cathode line denotes the cathode end
Marking: T4

Maximum Ratings ($T_a=25$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Repetitive Peak Reverse Voltage	V_{RRM}	V		100
Reverse Voltage	V_R	V	$I_R=100\mu A$	100
Peak Forward Surge Current	I_{FSM}	A	Pulse width=1 μs Pulse width=1 s	2.5 1
Average Forward Current	I_{FAV}	mA		150
Power Dissipation	$P_{tot}^{(1)}$	mW		150
Thermal Resistance Junction to Ambient	$R_{thJA}^{(1)}$	$^{\circ}C/W$		833
Junction Temperature	T_j			-55 to +150
Storage Temperature Range	T_{stg}			-55 to +150

(1) Device mounted on an FR4 PCB (1.0 x 1.0 x 0.06 inch), single-sided copper, tin-plated and standard footprint.

Electrical Characteristics $T_a=25$ Unless otherwise specified

PARAMETER	SYMBOL	UNIT	CONDITIONS	MIN	MAX
Breakdown Voltage	V_R	V	$I_R=100\mu A$	100	
Forward Voltage	V_F	V	$I_F=5mA$		0.715
			$I_F=10mA$		0.855
			$I_F=100mA$		1.00
			$I_F=150mA$		1.25
Reverse Leakage Current	I_{R1}	nA	$V_R=20V$		25
	I_{R2}	μA	$V_R=75V$		1
Capacitance	C	pF	$V_R=0V, f=1MHz$		4
Reverse Recovery Time	T_{rr}	ns	$I_F=I_R=10mA, I_{rr}=0.1 \cdot I_R, R_L=100$		4



1N4148WTQ

Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1N4148WTQ	F2	Approximate 0.002	8000	80000	320000	7" reel

Characteristics (Typical)

Fig.1: P_D-T_A

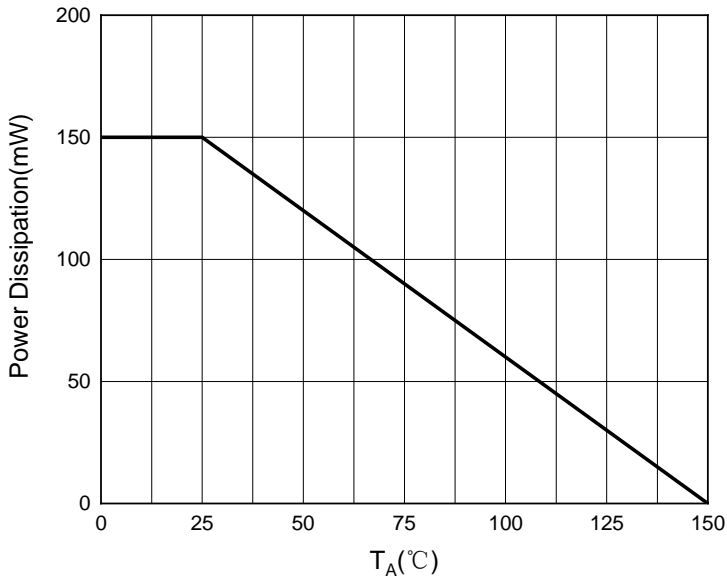


Fig.2: Capacitance Characteristics

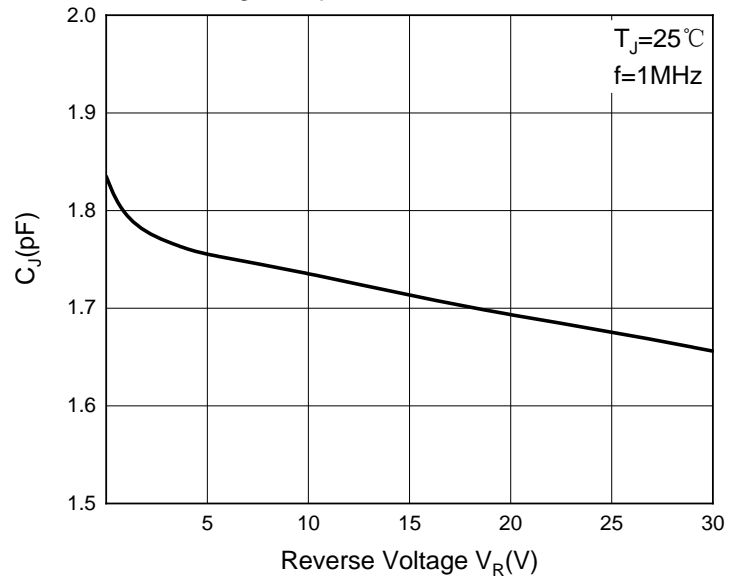


Fig3: Forward Characteristics

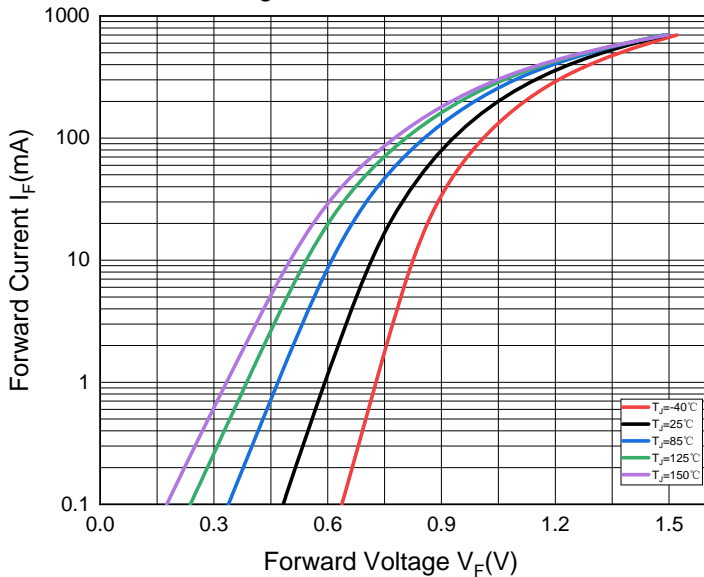
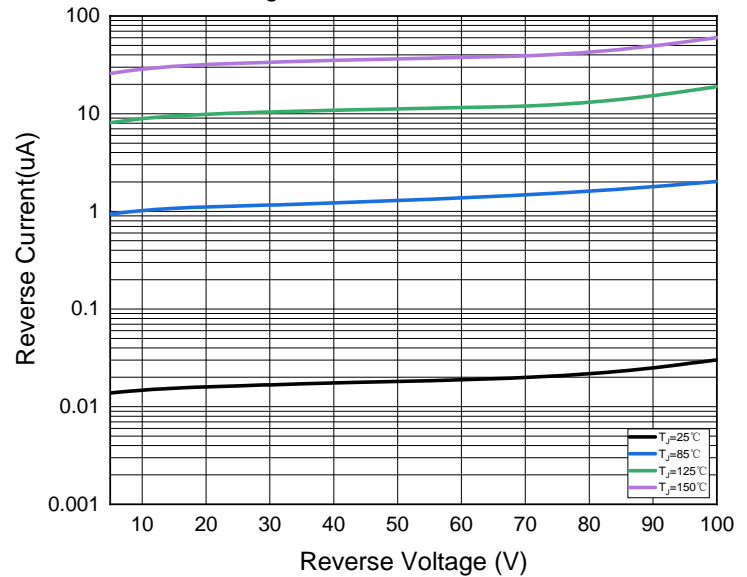


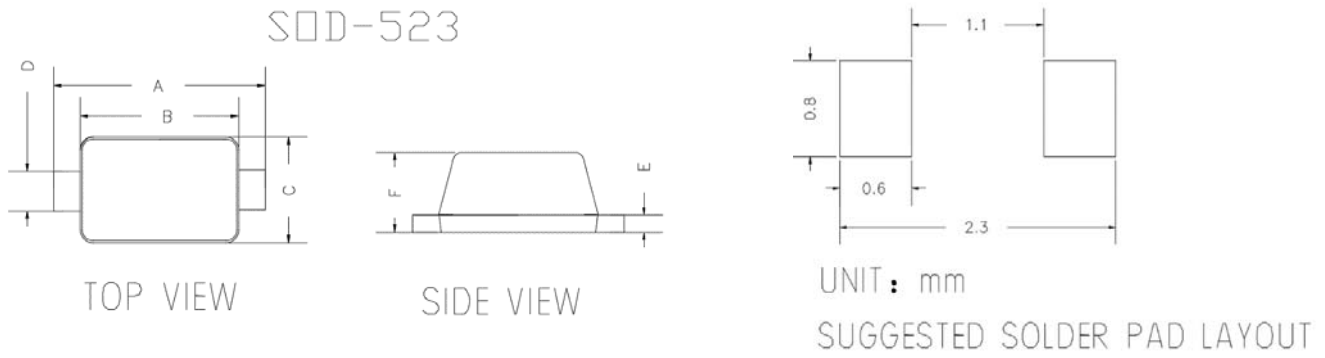
Fig.4: Reverse Characteristics





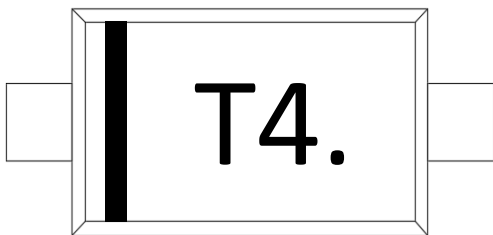
1N4148WTQ

Outline Dimensions



DIMENSIONS				
DIM	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.059	0.067	1.500	1.700
B	0.043	0.051	1.100	1.300
C	0.028	0.035	0.700	0.900
D	0.010	0.014	0.250	0.350
E	0.002	0.008	0.050	0.200
F	0.020	0.028	0.500	0.700

Marking Information



Note:

1. All marking is at middle of the product body
2. All marking is in laser marking
3. Body color: Black



1N4148WTQ

Disclaimer

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