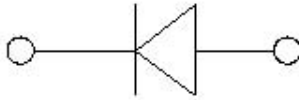
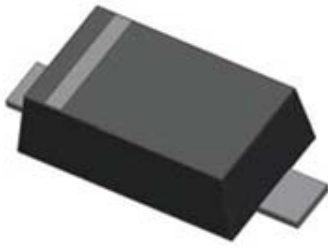


Small-Signal Fast Switching Diodes



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

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 ($T_a=25^\circ\text{C}$ Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	CONDITIONS	VALUE
Repetitive Peak Reverse Voltage	V_{RRM}	V		100
Reverse Voltage	V_R	V	$I_R=100\mu\text{A}$	100
Peak Forward Surge Current	I_{FSM}	A	Pulse width=1 μs Pulse width=1 s	2 1
Average Forward Current	I_{FAV}	mA		150
Power Dissipation	P_{tot}	mW		150
Maximum Junction Temperature	T_j	$^\circ\text{C}$		-55 to +150
Storage Temperature Range	T_{stg}	$^\circ\text{C}$		-55 to +150

■Electrical Characteristics ($T_a=25^\circ\text{C}$ Unless otherwise specified)

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



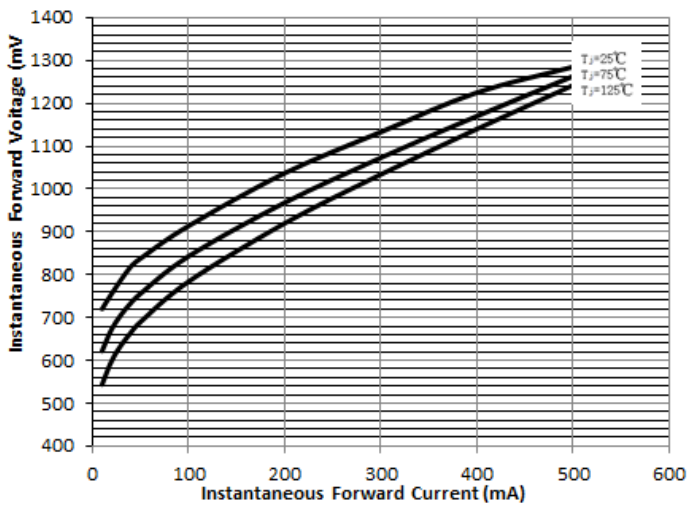
1N4148WTQ

Ordering Information (Example)

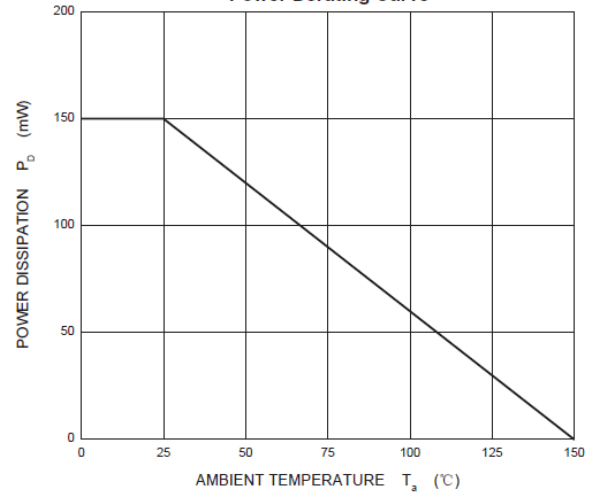
PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
1N4148WTQ	F2	Approximate 0.002	8000	80000	320000	7" reel

Characteristics (Typical)

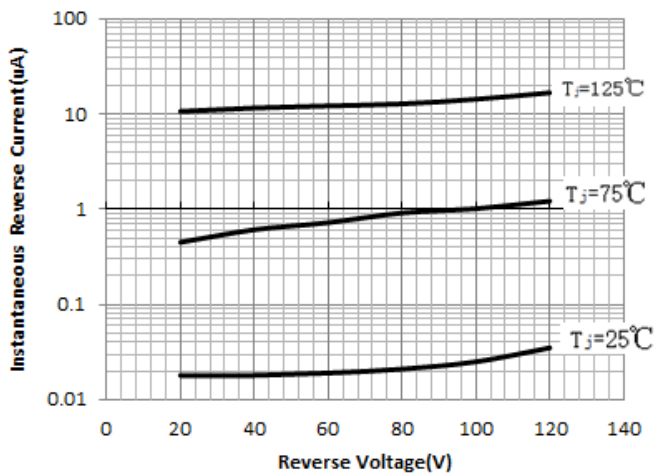
Typical Instantaneous Forward Characteristics



Power Derating Curve



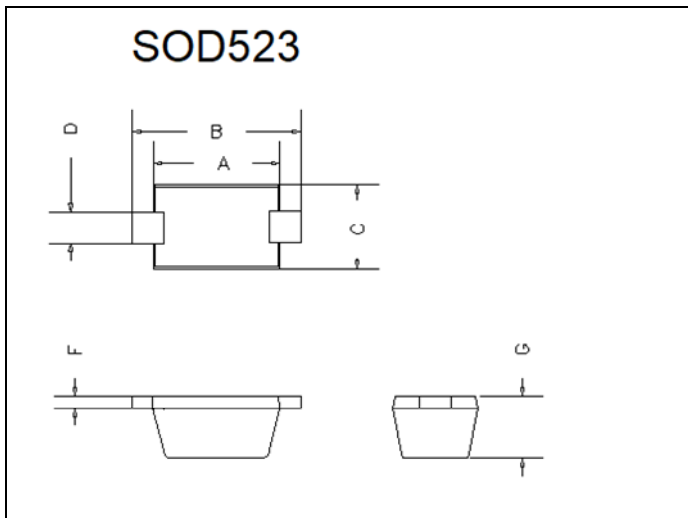
Typical Reverse Characteristics





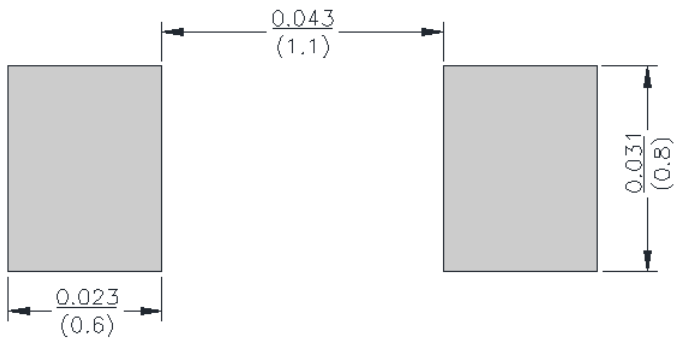
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■ Outline Dimensions



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.043	0.051	1.10	1.30	
B	0.059	0.067	1.50	1.70	
C	0.028	0.035	0.70	0.90	
D	0.010	0.014	0.25	0.35	
F	0.002	0.008	0.05	0.20	
G	0.020	0.028	0.50	0.70	

■ Soldering Footprint



Unit: inch(mm)



1N4148WTQ

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