CD4148WTP

SMALL SIGNAL DIODE

VOLTAGE: 75V **CURRENT: 150mA**

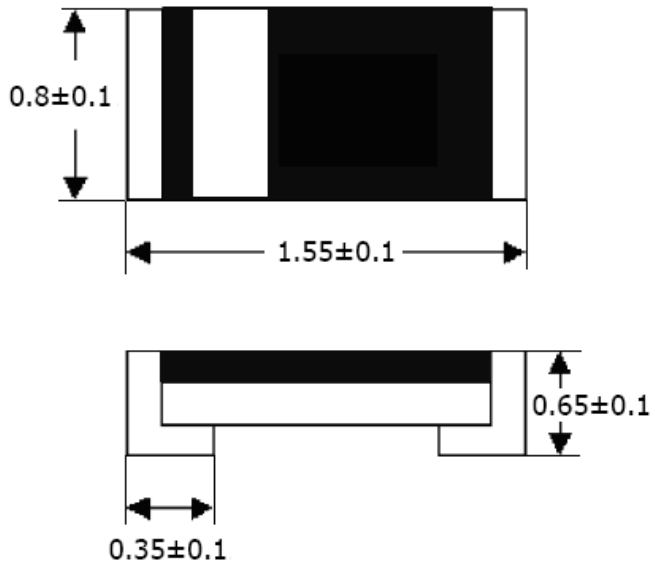
FEATURE

Silicon epitaxial planar diode
SMD chip pattern, available in various dimension included 0805 & 0603
Leadfree and RoHS compliance components

MECHANICAL DATA

Size: 1206
Weight: approx. 0.01g
Marking: cathode terminal

0603



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

Parameter	Symbol	Limit	units
Reverse Voltage	Vr	75	V
Peak Reverse Voltage	Vrm	100	V
Forward Continuous Current	Ifm	300	mA
Average Rectified Current sin half wave rectification with resistive load f≥50Hz (Note 1)	If(av)	150	mA
Surge Forward Current at t<1s and Tj=25°C	Ifsm	500	mA
Power dissipation (Note 1)	Ptot	400	mW
Typical Thermal Resistance (Note 1)	th(ja)	375	°C/W
Junction Temperature	Tj	175	°C
Storage Temperature	Tstg	-65 ~ +175	°C

Note:
1. Valid provide that electrodes are kept at ambient temperature

Electrical Characteristics(TJ = 25 ℃ unless otherwise noted)

parameter	symbol	Test Condition	min	typ	max	unit
Forward Voltage	Vf	If=10mA			1.0V	V
Leakage Current	Ir	Vr=20V Vr=75V Vr=20V,Tj=150℃			25 5.0 50	nA uA uA
Capacitance	Ctot	Vf=Vr=0V			4	pF
Voltage Rise when Switching ON (tested with 50mA Pulses)	Vfr	Tp=0.1uS,Rise Time<30nS Fp=5 to100KHZ			2.5	nS
Reverse Recovery Time	Trr	If=10mA,Ir=1 mA Vr=6v,Rl=100 Ω			4	nS
Rectification efficiency	ηr	F=100MHz,V_{RF}=2V	45			%

Rectification Efficiency Measurement Circuit