

Features

- ✧ For surface mounted application
- ✧ Low forward voltage drop
- ✧ High Current capability
- ✧ Fast switching for high efficiency
- ✧ High surge current capability
- ✧ Chip version in 1206 and 0805
- ✧ High temperature soldering:
260°C / 10 seconds at terminals

Item	1206	0805
L	0.135(3.40)	0.088(2.20)
	0.119(3.0)	0.072(1.8)
W	0.07(1.70)	0.058(1.45)
	0.054(1.30)	0.042(1.05)
T	0.038(0.95)	0.038(0.95)
	0.03(0.75)	0.03(0.75)
C	0.03(0.75)	0.026(0.65)
	0.014(0.35)	0.01(0.25)

Mechanical Data

- ✧ Cases: 0805, 1206
- ✧ Terminals: Pure tin plated lead free,
- ✧ Polarity: indicated by cathode arrow
- ✧ Packaging: 8 mm tape per EIA STD RS-481

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	0805	1206	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	100		V
Reverse Voltage	V_R	75		V
Maximum Average Forward Rectified Current Resistive Load f>50Hz	$I_{F(AV)}$	150		mA
Peak Forward Surge Current 8.3 ms Half Sine-wave 1 uS	I_{FSM}	500		mA
		2.0		A
Maximum Instantaneous Forward Voltage @100mA	V_F	1.0		V
Maximum D.C. Reverse Current @ $T_c=25^\circ\text{C}$ $V_R=20\text{V}$ at Rated DC Blocking Voltage @ $T_c=125^\circ\text{C}$ $V_R=20\text{V}$	I_R	25		nA
		50		uA
Typical Reverse Recovery Time(Note 2) $T_J=25^\circ\text{C}$	T_{rr}	5.0		nS
Typical Junction Capacitance (Note 1)	C_j	1.65	1.60	pF
Typical Thermal Resistance	$R_{\theta JA}$	190	150	°C/W
	$R_{\theta JC}$	80	60	
Power Dissipation	P_D	500		mW
Operating Junction Temperature Range	T_J	-65 to + 200		°C
Storage Temperature Range	T_{STG}	-65 to + 200		°C

- Notes:
1. Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.
 2. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, Recover to 0.25A.

RATINGS AND CHARACTERISTIC CURVES (TS4148)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

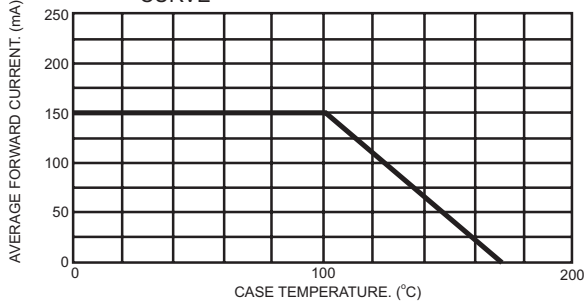


FIG.2- TYPICAL REVERSE CHARACTERISTICS

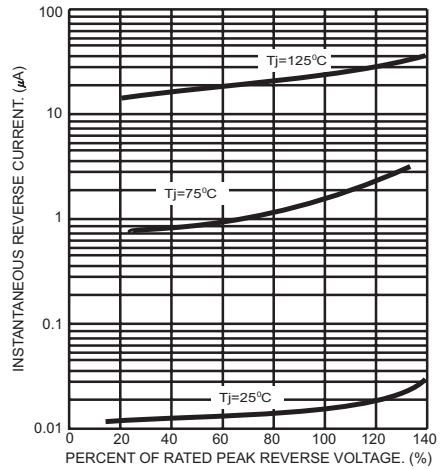


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

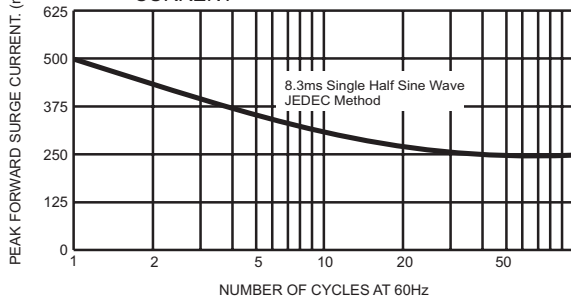


FIG.5- FORWARD CHARACTERISTICS CURVE

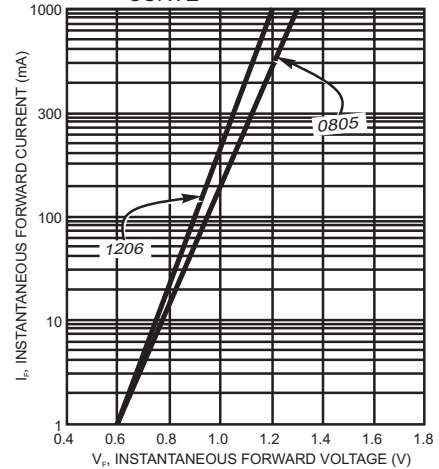


FIG.4- TYPICAL JUNCTION CAPACITANCE

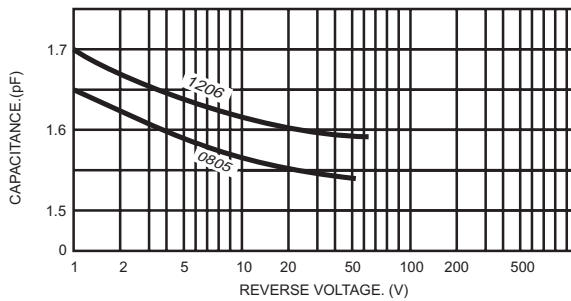


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

