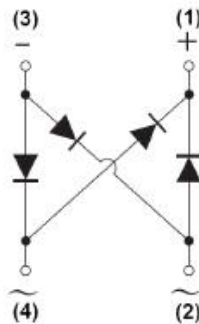
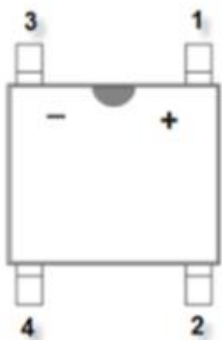


Features

- ◆ Glass Passivated Die Construction
- ◆ Miniature Package Saves Space on PC Boards
- ◆ High Current Capability
- ◆ Ideal for SMT Manufacturing
- ◆ Low Forward Voltage Drop
- ◆ Halogen Free and RoHS Compliant

Schematic



Dimensions (SOPA-4)

Symbol	Dimension	
	Millimeters	
	Min.	Max.
A1	-	0.20
A2	1.20	1.50
b	0.50	0.70
c	0.15	0.25
D	4.80	5.30
E	6.00	6.80
E1	4.20	4.60
e	3.80	4.20

Maximum Ratings and Thermal Characteristics($T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter		Symbol	Value	Unit
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V_{RRM} V_{RWM} V_R	1000	V
RMS Reverse Voltage		$V_{R(RMS)}$	700	V
Leakage Current (Note 3)@ $V_R = 1,000\text{V}$	25 $^{\circ}\text{C}$	I_R	5	μA
	125 $^{\circ}\text{C}$		100	
Min Reverse Breakdown Voltage (Note 3)@ $I_R = 5\mu\text{A}$		$V_{(BR)R}$	1000	V
Average Rectified Output Current (Note 2) @ $T_A = 125^{\circ}\text{C}$		I_O	1.0	A
Max Forward Voltage@ $I_F = 1.0\text{A}$		V_F	1.1	V
Non-Repetitive Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Superimposed on Rated Load		I_{FSM}	35	A
Typical Thermal Resistance, Junction to Ambient (Note2) (Per Element)		$R_{\theta JA}$	72	$^{\circ}\text{C/W}$
Total Capacitance @ $V_R = 4\text{V}$, $f = 1.0\text{MHz}$		C_T	13	pF
Typical Thermal Resistance, Junction to Lead (Per Element)		$R_{\theta JL}$	37	$^{\circ}\text{C/W}$
Operating and Storage Temperature Range		T_J, T_{STG}	-55~+150	$^{\circ}\text{C}$

Notes:

1. Device mounted on FR-4 substrate, 1"*1", 2oz, single-sided, PC boards with 0.15"*0.26" copper pad.
2. Device mounted on FR-4 substrate, 1"*1", 2oz, single-sided, PC boards with 0.56"*0.73" copper pad.
3. Short duration pulse test used to minimize self-heating effect.

Ratings and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Figure 1. DC Forward Current Derating

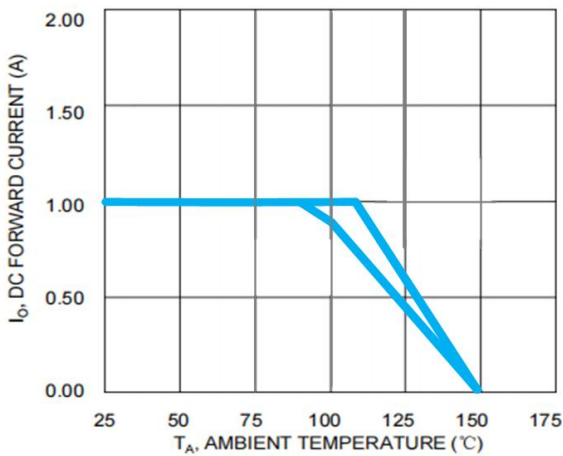


Figure 2. Typical Forward Characteristics

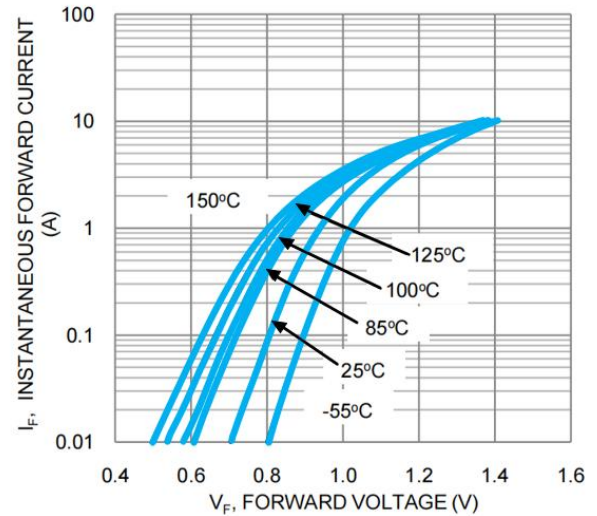


Figure 3. Maximum Non-repetitive Forward Surge Current

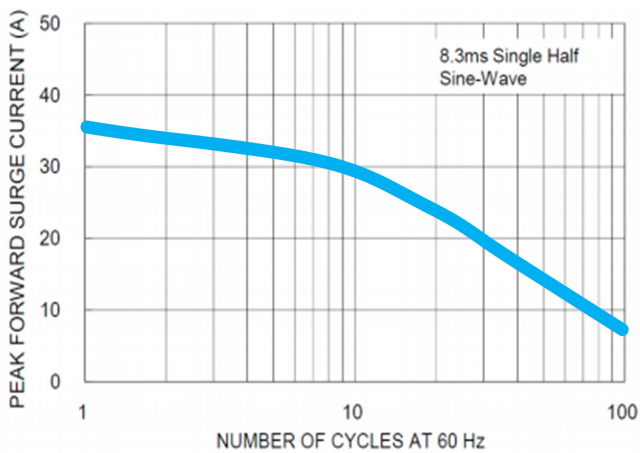


Figure 4. Typical Reverse Characteristics

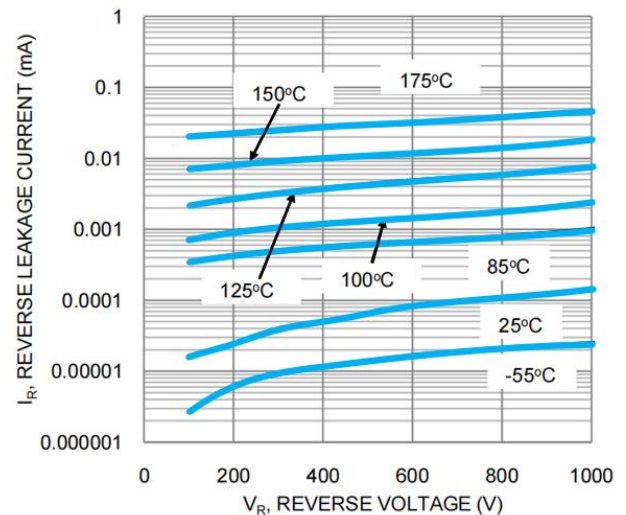
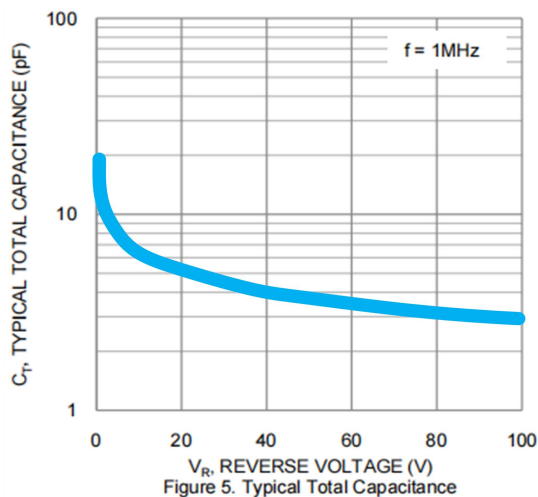
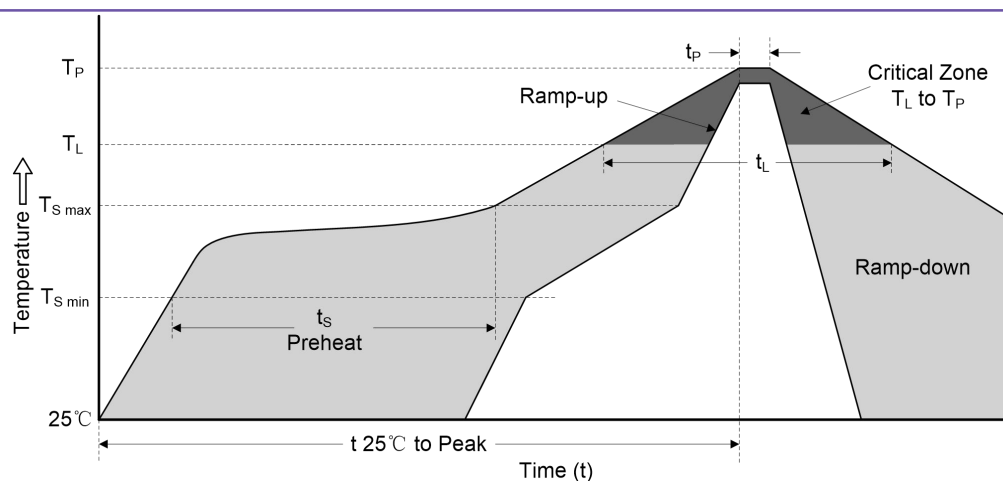


Figure 5. Typical Total Capacitance



Reflow Soldering Parameters



Reflow Condition		Lead-free Assembly
Pre heat	-Temperature Min ($T_{S\ min}$)	150°C
	-Temperature Max ($T_{S\ max}$)	200°C
	-Time (min to max) (t_s)	60-180 seconds
Average ramp-up rate (T_L to T_P)		3°C/second max.
$T_{S\ max}$ to T_L -Ramp-up Rate		3°C/second max.
Reflow	-Temperature (T_L) (Liquidus)	217°C
	-Time (min to max) (t_s)	60-150 seconds
Peak Temperature (T_P)		260(+0/-5)°C
Time within 5°C of actual Peak Temperature (t_p)		20-40 seconds
Ramp-down Rate		6°C/second max.
Time 25°C to Peak Temperature(T_P)		8 minutes max.
Do not exceed		260°C