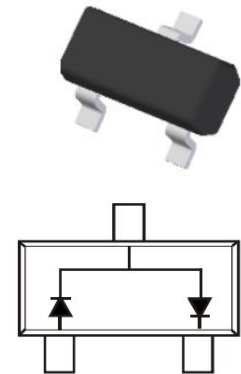


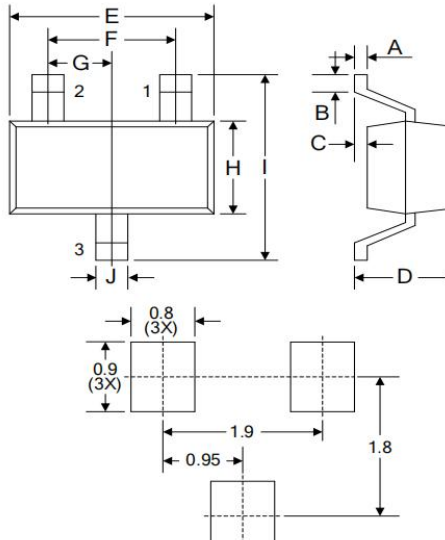
Feature

- ◆ Fast Switching Speed
- ◆ Low Forward Voltage: Maximum of 0.715V at 1mA
- ◆ Low leakage current
- ◆ Fast Reverse Recovery: Maximum of 4ns
- ◆ For surface mounted applications to optimize board space
- ◆ Meets MSL level 1, per J-STD-020, LF maximum peak of 260°C
- ◆ Case: Molding compound meets UL 94 V-0 flammability rating
- ◆ SOT-23 Surface Mount Package



Dimensions(SOT-23)

Symbol	Dimension			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.08	0.18	0.003	0.007
B	0.15	-	0.006	-
C	-	0.13	-	0.005
D	0.89	1.09	0.035	0.043
E	2.80	3.05	0.110	0.120
F	1.90		0.075	
G	0.95		0.037	
H	1.19	1.40	0.047	0.055
I	2.10	2.49	0.083	0.098
J	0.35	0.50	0.014	0.020

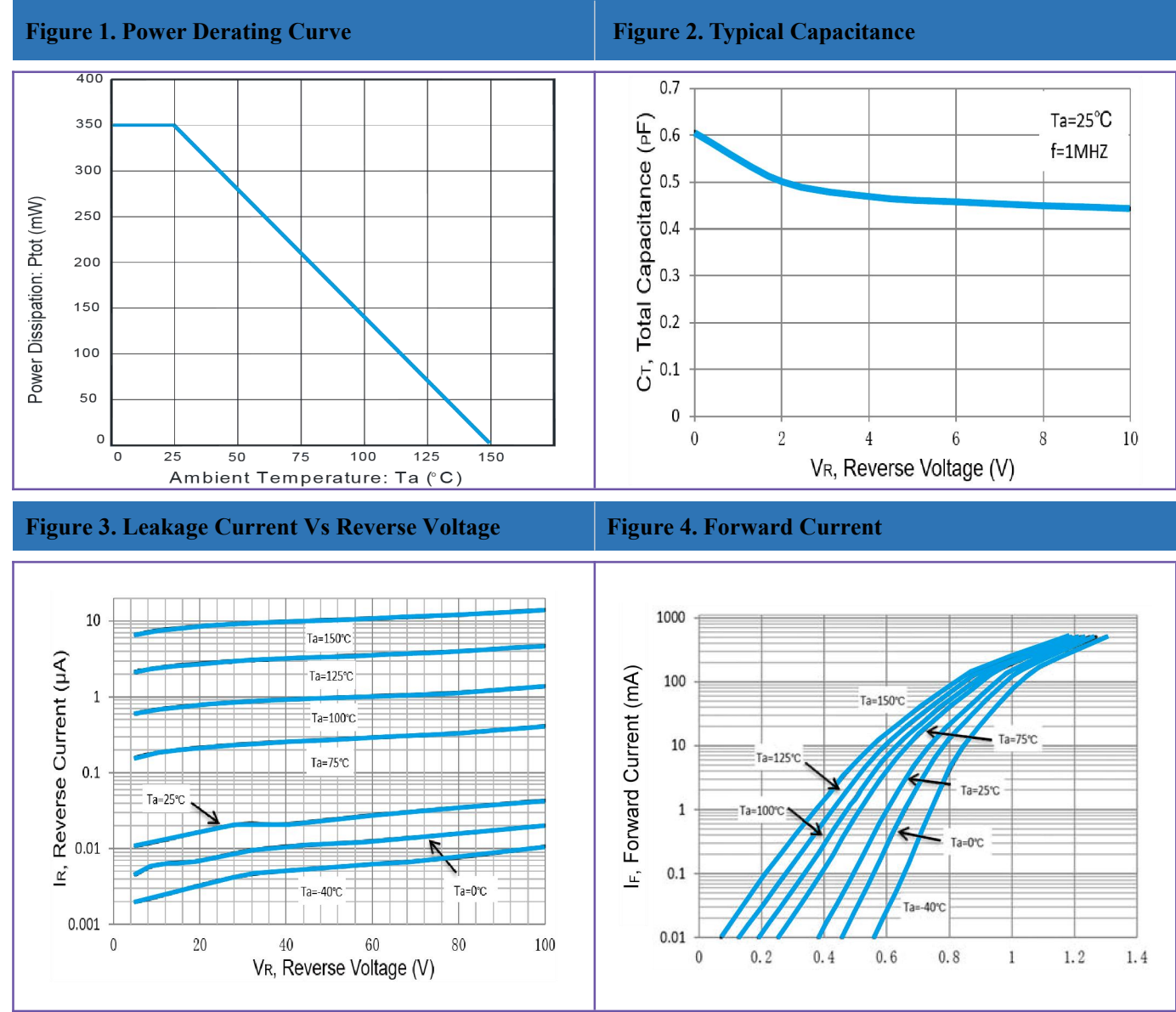


Recommended Soldering Pad Layout

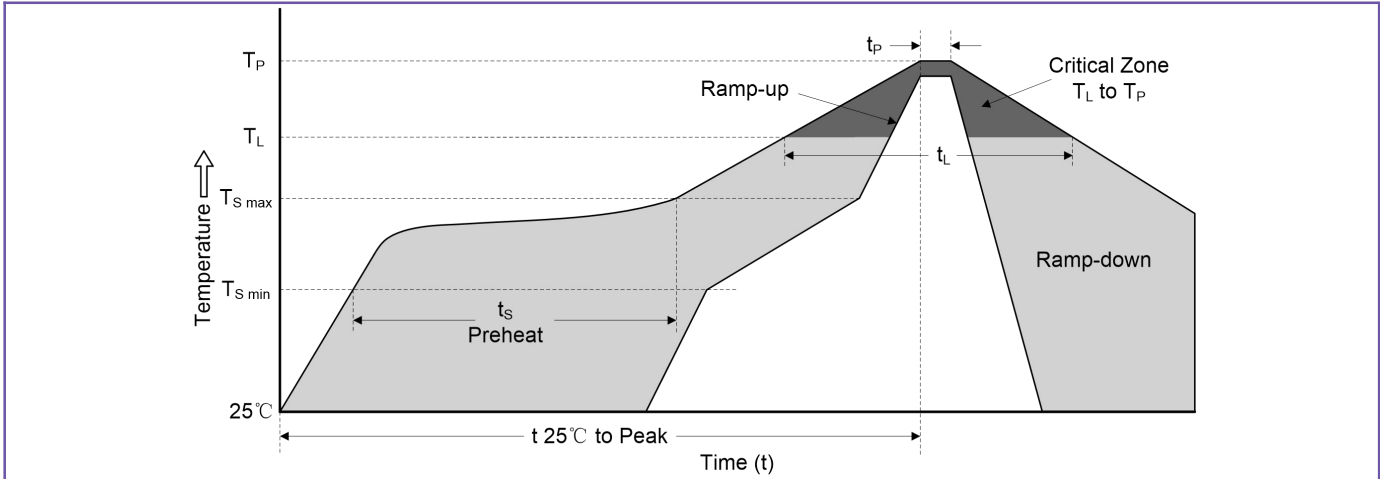
Maximum Ratings($T_A = 25^\circ\text{C}$, unless otherwise specified.)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	350	mW
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Continuous Reverse Voltage	V_R	100	V
RMS Voltage	$V_{\text{R(RMS)}}$	53	V
Min Reverse Breakdown Voltage@ $I_R = 2.5\mu\text{A}$	$V_{\text{(BR)R}}$	75	V
Continuous Forward Current	I_F	300	mA
Forward Voltage@at $I_F = 1\text{mA}$	V_F	0.715	V
Forward Voltage@at $I_F = 150\text{mA}$	V_F	1.25	V
Repetitive Peak Forward Current	I_{FRM}	450	mA
Non-repetitive peak Forward Surge Current at $t = 1\text{s}$ at $t = 1\mu\text{s}$	I_{FRM}	1 2	A
Total Capacitance at $V_R = 0$, $f = 1\text{MHz}$	C_T	1.5	pF
Reverse Current@at $V_R = 75\text{V}$, 25°C	I_R	1	μA
Reverse Current@at $V_R = 75\text{V}$, $T_j = 150^\circ\text{C}$		50	μA
Reverse Recovery Time at $I_{\text{rr}} = 0.1 \times I_R$, $I_F = 10\text{mA}$, $V_R = 6\text{V}$, $R_L = 100\Omega$	t_{rr}	4	ns
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to +150	$^\circ\text{C}$

Typical Characteristics Curves($T_A = 25^{\circ}\text{C}$, unless otherwise specified.)



Reflow Soldering Parameters



Reflow Condition		Lead-free Assembly
Pre heat	-Temperature Min (TSmin)	150℃
	-Temperature Max (TSmax)	200℃
	-Time (min to max) (ts)	60-180 seconds
Average ramp-up rate (TL to TP)		3℃/second max.
TSmax to TL -Ramp-up Rate		3℃/second max.
Reflow	-Temperature (TL) (Liquidus)	217℃
	-Time (min to max) (ts)	60-150 seconds
Peak Temperature (TP)		260(+0/-5)℃
Time within 5℃ of actual Peak Temperature (tP)		20-40 seconds
Ramp-down Rate		6℃/second max.
Time 25℃ to Peak Temperature(Tp)		8 minutes max.
Do not exceed		260℃