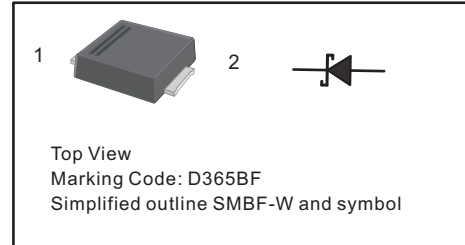




Switching Control Diode
Reverse Voltage - 650V
Forward Current - 3.0A

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



FEATURES

- High current capability
- Smoothly soft reverse recovery time(trr)
- Low profile surface mounted package in order to minimize board apace
- Pb-free lead plating and halogen-free package

MECHANICAL DATA

- Case: SMBF-W
- Polarity: Indicated by cathode band
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 57mg / 0.002oz

Absolute Maximum Ratings

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	D365BF	Units
Repetitive Peak Reverse Voltage	V_{RRM}	650	V
RMS voltage	V_{RMS}	455	V
Continuous reverse voltage	V_R	650	V
Forward Rectified Current	$I_{F(AV)}$	3.0	A
Repetitive Peak Forward Current	I_{FRM}	4.7	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	20	A
Power Dissipation	P_D	1.7	W
	$T_A = 25^{\circ}C$		
Continuous reverse voltage	V_R	650(Min)	V
	$I_R = 100\mu A$		
Forward Voltage	V_F	1.1(Max) 1.2(Max)	V
	at 1 A at 3 A		
Reverse Leakage Current	I_R	10(Max)	μA
	$V_R = 620V$		
Maximum reverse recovery time	T_{rr}	3	μs
	$I_F = 0.5A, I_R = 1A$ $IRR = 0.25A$		
Typical Thermal Resistance	$R_{\theta JA}$	75	$^{\circ}C/W$
Junction Capacitance	C_j	51(Typ)	pF
	$V_R = 1V, f = 1MHz$		
Operating Junction Temperature Range	T_j	-55 ~ +150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55 ~ +150	$^{\circ}C$

(1) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas



Fig.1 Power Derating Curve

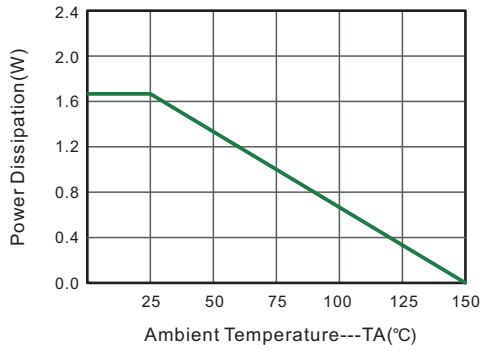


Fig.2 Typical Reverse Characteristics

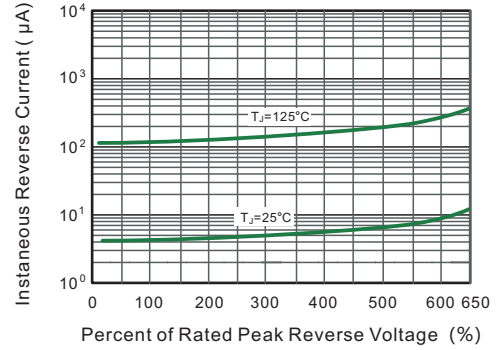


Fig.3 Typical Forward Characteristic

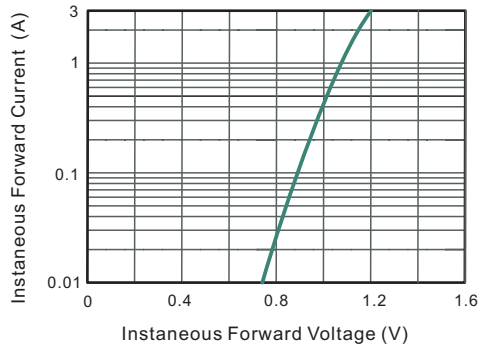
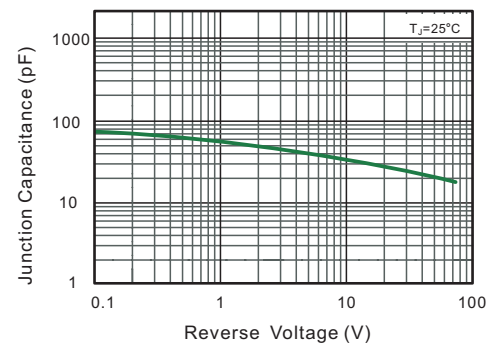


Fig.4 Typical Junction Capacitance

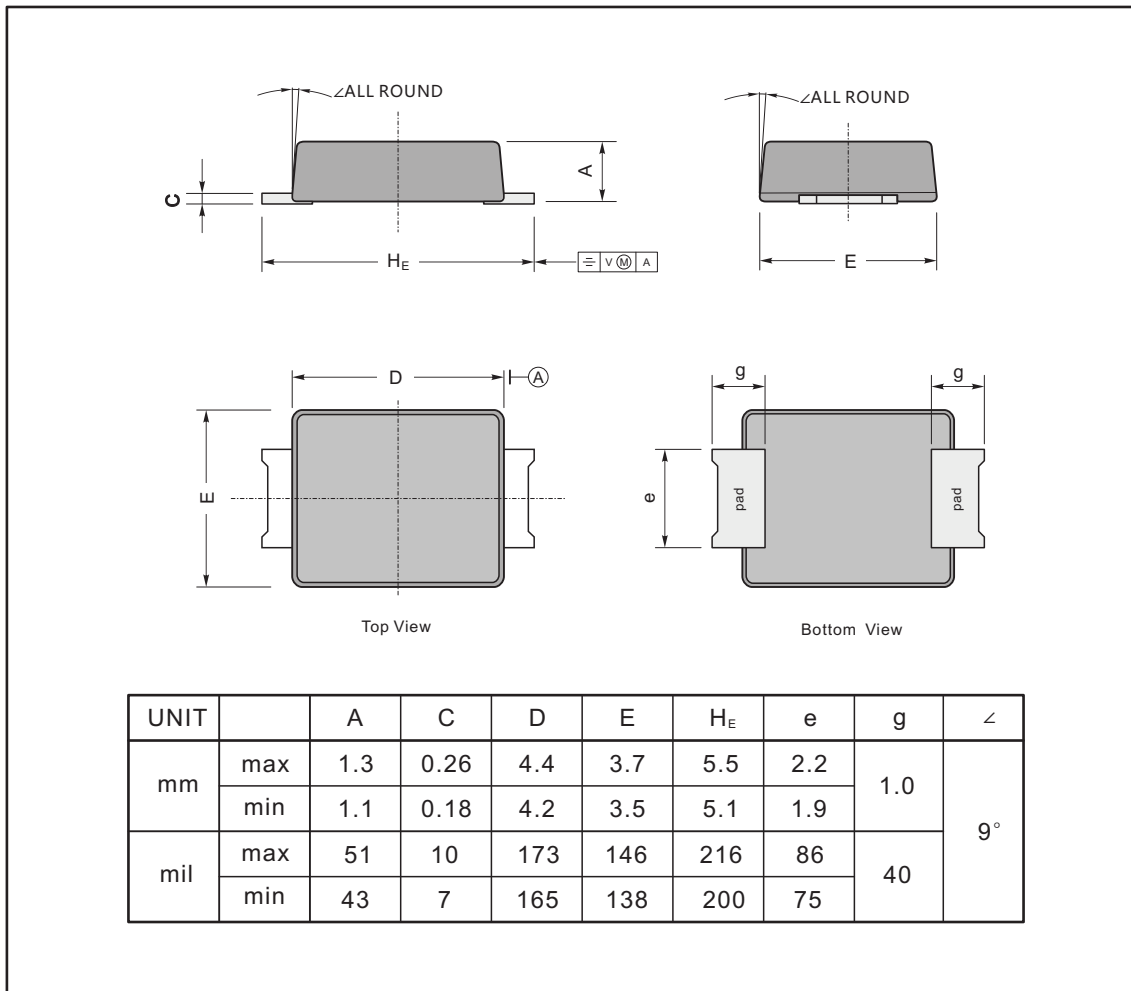




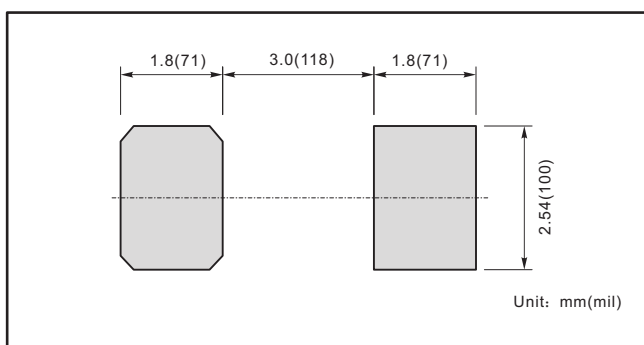
PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMBF-W



The recommended mounting pad size



Marking

Type number	Marking code
D365BF	D365BF