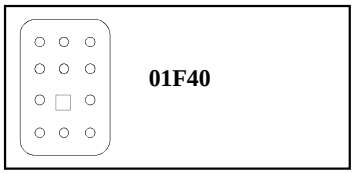
Schottky Barrier Rectifiers Reverse Voltage 20 to 40V Forward Current 0.1A

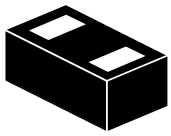
FEATURES

- Very Low Forward Voltage Drop
- Low Reverse Current
- 0.1 A of Continuous Forward Current
- ESD Rating －Human Body Model: Class 3B >8kv
  －Machine Model: Class C >400V
- Very High Switching Speed
- These Devices are Pb－Free, Halogen Free/BFR Free and are RoHS Compliant

UP SIDE



BACK SIDE



DSN-2(0201)

Mechanical Data

Case: DSN-2(0201)

Terminals: Au Plated, solderable per MIL-STD-750, Method 2026

Electrical Characteristic

Maximum & Thermal Characteristics Ratings at 25℃ ambient temperature unless other wise specified.

Parameter Symbol	Symbol	FDR01F20	FDR01F30	FDR01F40	Unit
Device marking code		01F20	01F30	01F40	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	V
Maximum RMS voltage	V_{RMS}	14	21	28	V
Maximum DC blocking voltage	V_{DC}	20	30	40	V
Maximum average forward rectified current	$I_{F(AV)}$	0.1			A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	4			A
Typical thermal resistance (Note 1) (Note 2)	$R\theta J_A$	400 170			°C/W
Total Power Dissipation @ Ta = 25°C	PD	312			mW
Operating junction temperature range	T_J	–40 to +125			°C
Storage temperature range	T_{STG}	–40 to +150			°C

Electrical Characteristics Ratings at 25 C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	FDR01F20	FDR01F30	FDR01F40	Unit
Maximum instantaneous forward voltage at(IF = 0.01 A, TJ = 25°C) (IF = 0.1 A, TJ = 25℃)	V_F	0.37 0.43	0.37 0.43	0.40 0.46	V
Maximum DC reverse current at rated DC blocking voltage T_A = 25℃	I_R	50			uA

NOTES:

1. Mounted onto a 4 in square FR－4 board 50 mm sq. 1 oz. Cu 0.06” thick single sided. Operating to steady state.
2. Mounted onto a 4 in square FR－4 board 1 in sq. 1 oz. Cu 0.06” thick single sided. Operating to steady state.

Ratings and Characteristic Curves(Ta = 25℃ unless otherwise noted)

Fig 1. Typical Instantaneous Forward Characteristics

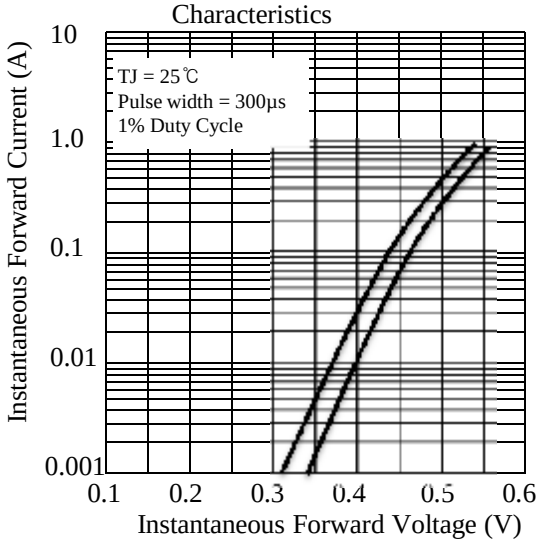


Fig 2. Typical Reverse Characteristics

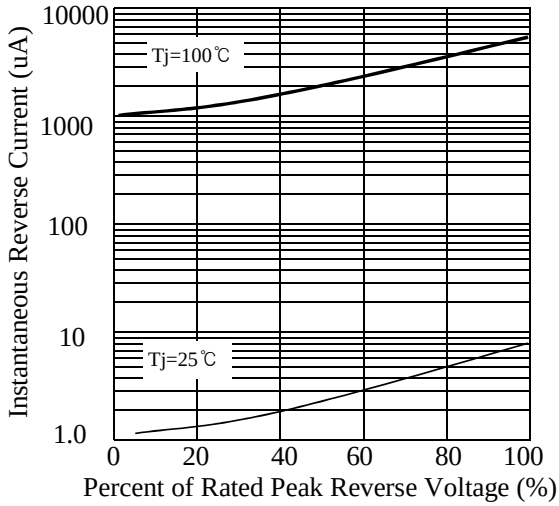
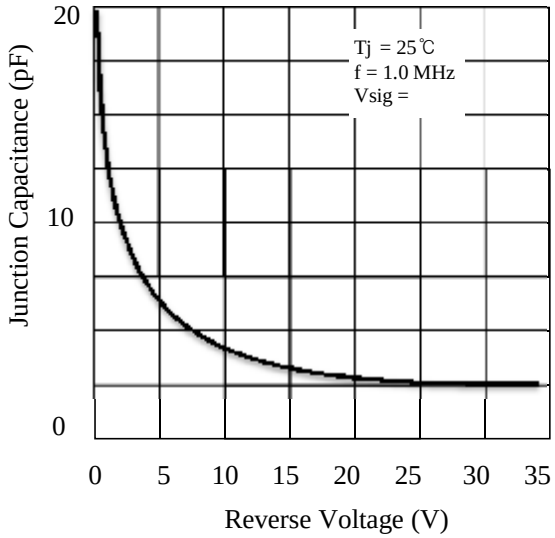
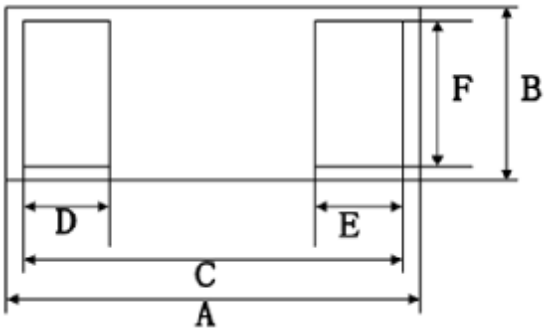


Fig 3. Typical Junction Capacitance



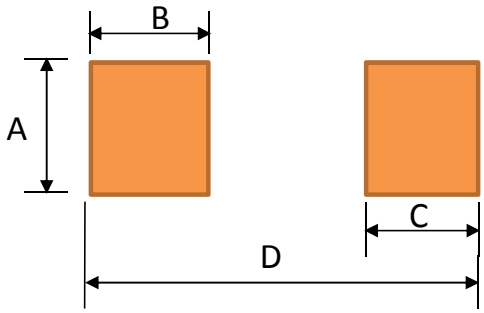
dimension:

DSN-0201



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.57	0.63	0.022	0.025
B	0.27	0.33	0.011	0.013
C	0.5	0.55	0.020	0.022
D	0.12	0.18	0.005	0.007
E	0.12	0.18	0.005	0.007
F	0.22	0.28	0.009	0.011
Pole high	6. 5um	7. 5um		
chip thick.	0.24	0.3	0.009	0.012

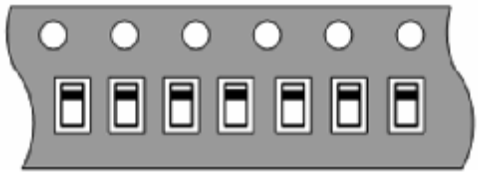
Suggested solder pad layout

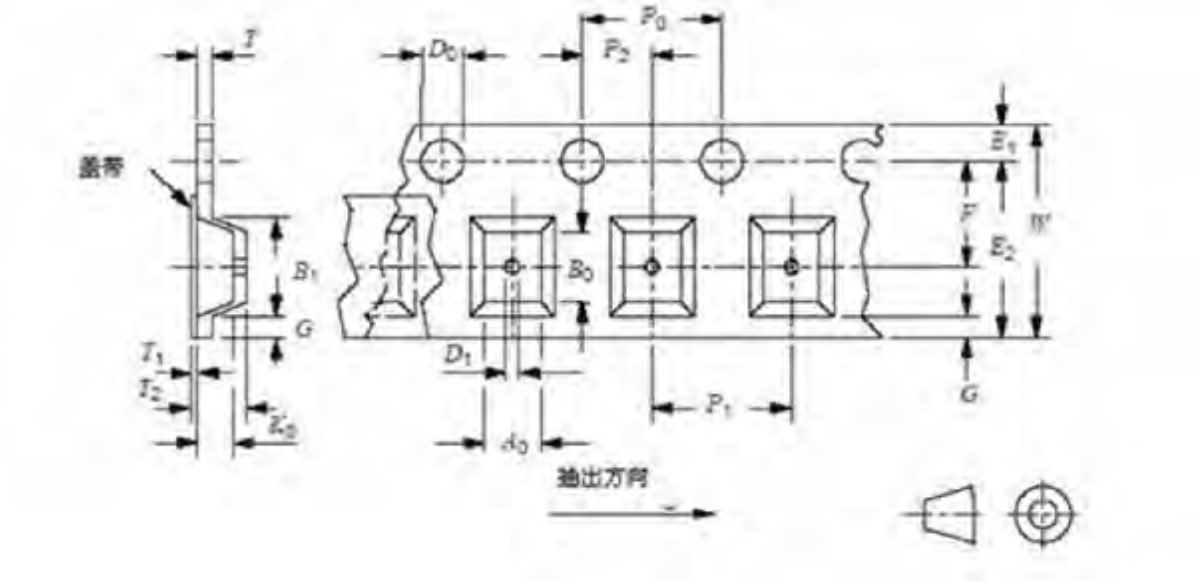


Dimensions in inches and (millimeters)

PACKAGE	A	B	C	D
0201	0.012(0.3)	0.011(0.28)	0.011(0.28)	0.030(0.75)

Packing information





Unit mm

Symbol	tolerance	DSN-0402
W	0.1	8.00
D_0	0.1	1.50
P_0	0.1	4.00
E_1	0.1	1.75
P_1	0.1	2.00
P_2	0.1	2.00
A_0	0.01	0.35
B_0	0.01	0.65
K_0	0.01	0.30
B_1	0.01	1.10
C	0.1	5.50
T	0.01	0.20
T_1	0.01	0.10
D_1	0.01	0.22