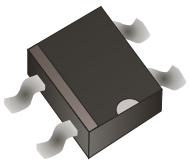
SMD Glass Passivated Bridge Rectifiers

DF2005S-G Thru. DF210S-G

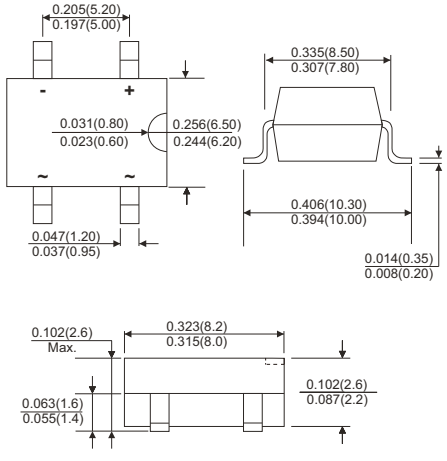
Reverse Voltage: 50 to 1000V
Forward Current: 2.0A
RoHS Device



Features

- Rating to 1000V PRV
- Ideal for printed circuit board.
- Low forward voltage drop.
- High current capability.
- The plastic material has UL flammability classification 94V-0
- UL recognized file # E217139

DFS



Dimensions in inches and (millimeter)

Mechanical Data

- Polarit: As marked on Body.
- Weight: 0.02 ounces, 0.38 grams (approx.).
- Mounting position: Any.

Maximum Ratings and Electrical Characteristics

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

Parameter	Symbol	DF 2005S-G	DF 201S-G	DF 202S-G	DF 204S-G	DF 206S-G	DF 208S-G	DF 210S-G	Unit
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @T_A=40°C	$I_{(AV)}$	2.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	60							A
Maximum forward voltage at 2.0A DC	V_F	1.1							V
Maximum DC reverse current @T_J=25°C at rate DC blocking voltage @T_J=125°C	I_R	10 500							μA
I^2T rating for fusing (t<8.3ms)	I^2t	10.4							A^2s
Typical junction capacitance per element (Note 1)	C_J	25							pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	40							°C/W
Operating temperature range	T_J	-55 to +150							°C
Storage temperature range	T_{STG}	-55 to +150							°C

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
2. Thermal resistance from junction to ambient mounted on P.C.B with 0.5*0.5"(13*13mm) copper pads.

Rating and Characteristics Curves (DF2005S-G Thru. DF210S-G)

Fig.1 - Derating Curve For Output Rectified Current

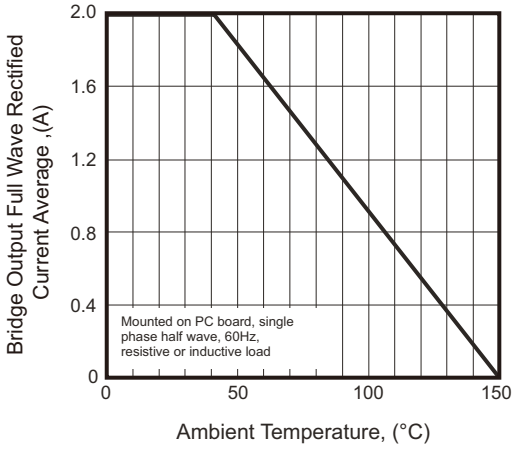


Fig.2 - Maximum Non-Repetitive Peak Forward Surge Current

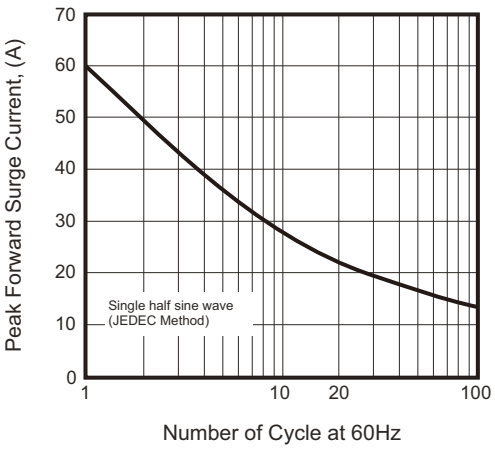


Fig.3 - Typical Junction Capacitance

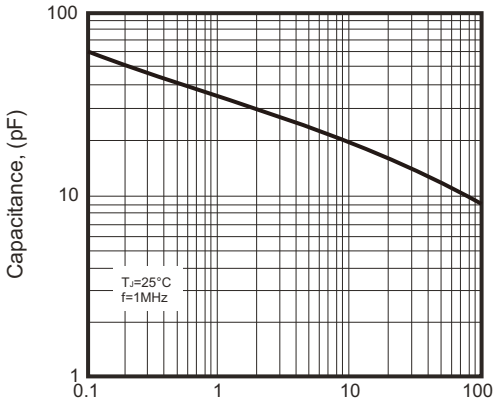


Fig.4 - Typical Forward Characteristics

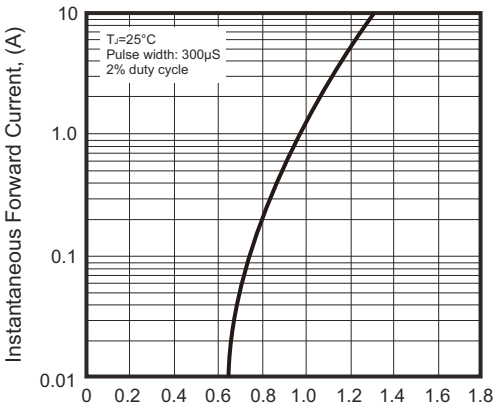
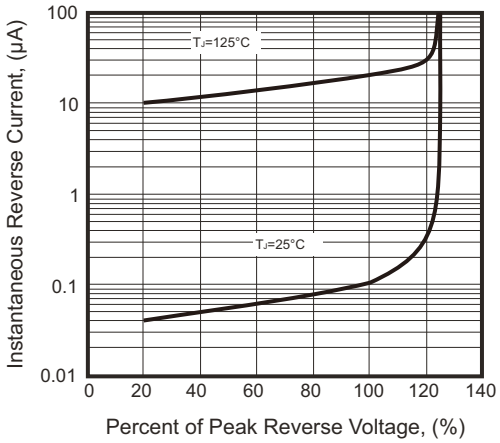
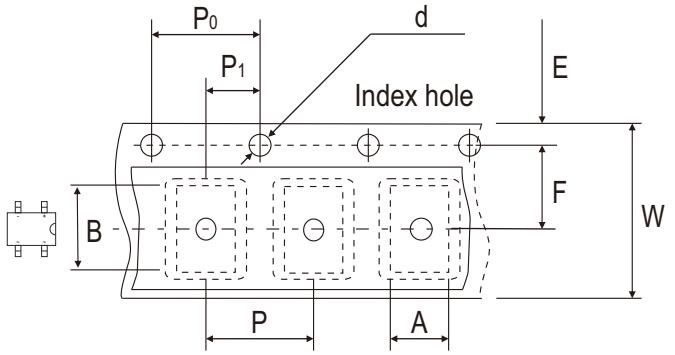
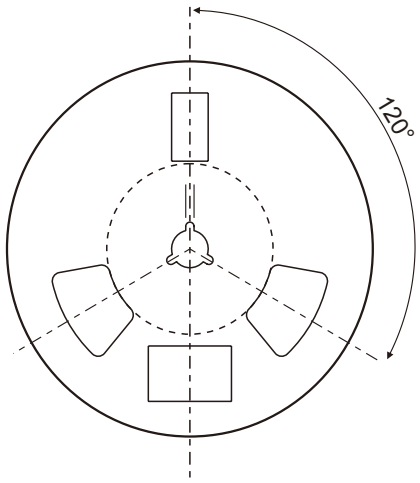


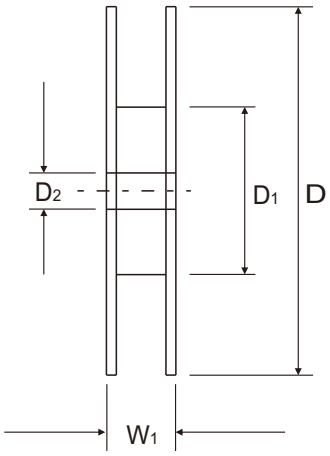
Fig.5 - Typical Reverse Characteristics

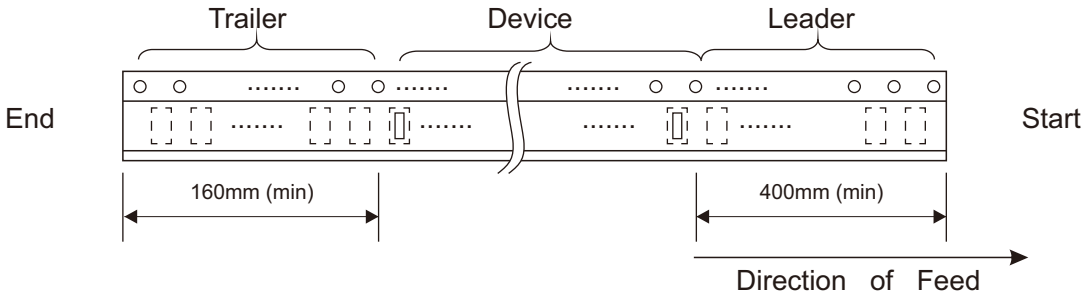


Reel Taping Specification







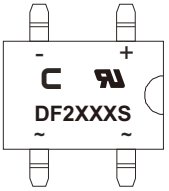


	SYMBOL	A	B	C	d	D	D1	D2
DFS	(mm)	8.64 ± 0.10	10.41 ± 0.10	3.81 ± 0.10	1.55 ± 0.05	330	50.0 MIN.	13.00 ± 0.20
	(inch)	0.340 ± 0.004	0.409 ± 0.004	0.150 ± 0.004	0.061 ± 0.002	13	1.969 MIN.	0.512 ± 0.008

	SYMBOL	E	F	P	P0	P1	T	W	W1
DFS	(mm)	1.75 ± 0.10	7.50 ± 0.05	12.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.32	16.00 ± 0.30	16.00~18.40
	(inch)	0.069 ± 0.004	0.295 ± 0.002	0.472 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.013	0.630 ± 0.012	0.630~0.724

Marking Code

Part Number	Marking code
DF2005S-G	DF2005S
DF201S-G	DF201S
DF202S-G	DF202S
DF204S-G	DF204S
DF206S-G	DF206S
DF208S-G	DF208S
DF210S-G	DF210S

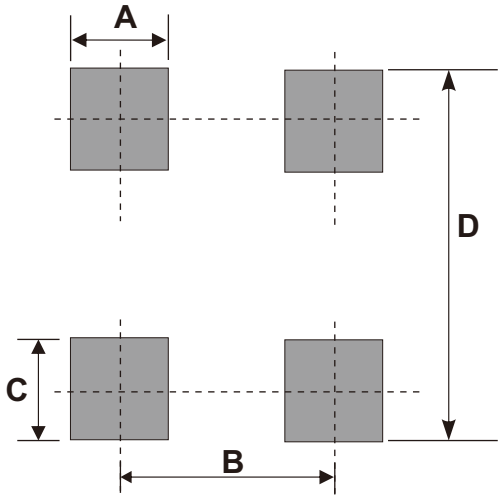


XX / XXX = Product type marking code

⊂ = Comchip Logo

Suggested P.C.B. PAD Layout

SIZE	DFS	
	(mm)	(inch)
A	1.20 Min	0.047 Min
B	5.21 REF	0.205 REF
C	1.52 Min	0.060 Min
D	10.26 Max	0.404 Max



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DFS	1,000	13