

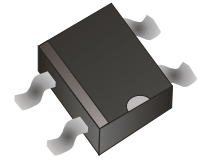
DF005S-HF Thru. DF10S-HF

Reverse Voltage: 50 to 1000V

Forward Current: 1.0A

RoHS Device

Halogen Free

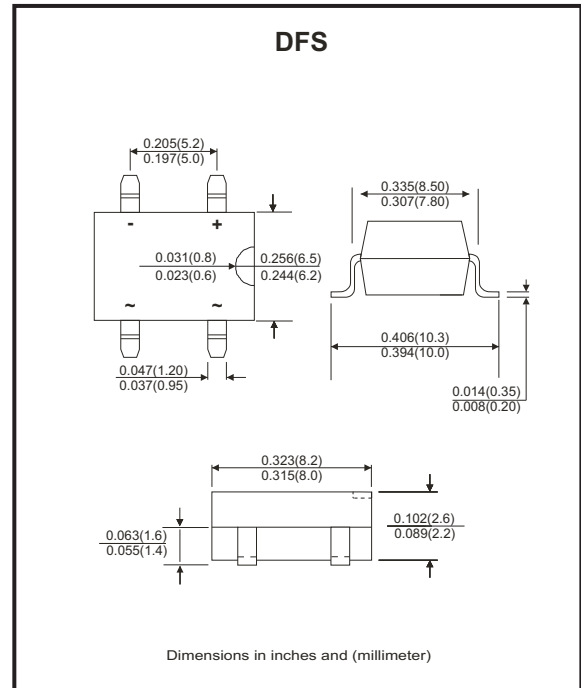


Features

- Rating to 1000V PRV
- Ideal for printed circuit board
- Low forward voltage drop, high current capability
- Reliable low cost construction utilizing molded plastic technique results in inexpensive product
- Lead tin Pb/Sn copper
- The plastic material has UL flammability classification 94V-0

Mechanical Data

- Polarit:As marked on Body
- Weight: 0.34 grams
- 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	DF005S-HF	DF01S-HF	DF02S-HF	DF04S-HF	DF06S-HF	DF08S-HF	DF10S-HF	Unit
Maximum Reverse Peak Repetitive 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 @ $T_A=40^{\circ}C$	$I_{(AV)}$	1.0							A
Peak Forward Surge Current , 8.3ms Single Half Sine-Wave Super Imposed On Rated Load	I_{FSM}	30							A
$I^2 t$ Rating for Fusing ($t < 8.3ms$)	$I^2 t$	10.4							A ² s
Maximum Forward Voltage at 1.0A DC	V_F	1.1							V
Maximum Reverse Current @ $T_J=25^{\circ}C$ At Rated DC Blocking Voltage @ $T_J=125^{\circ}C$	I_R	10 500							μA
Typical Junction Capacitance (Note 1)	C_J	25							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	40							$^{\circ}C/W$
Operating Temperature Range	T_J	$-55 \sim +150$							$^{\circ}C$
Storage Temperature Range	T_{STG}	$-55 \sim +150$							$^{\circ}C$

Notes:

1. Measured at 1.0MHz and applied reverse voltage of 4.0V.
2. Unit mounted on P.C.B with 0.51"×0.51" (13×13mm) copper pads.

Rating and Characteristics Curves (DF005S-HF Thru. DF10S-HF)

Fig.1 - Forward Current Derating Curve

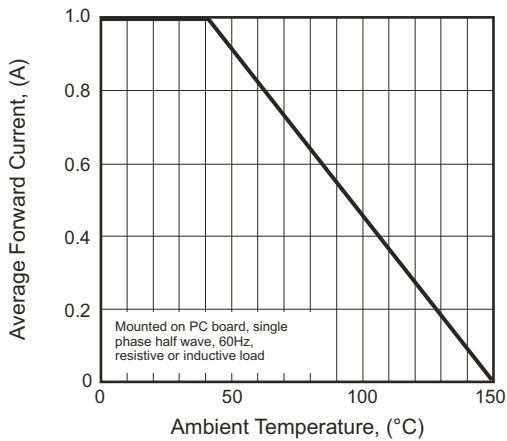


Fig.2 - Maximum Non-repetitive Surge Current

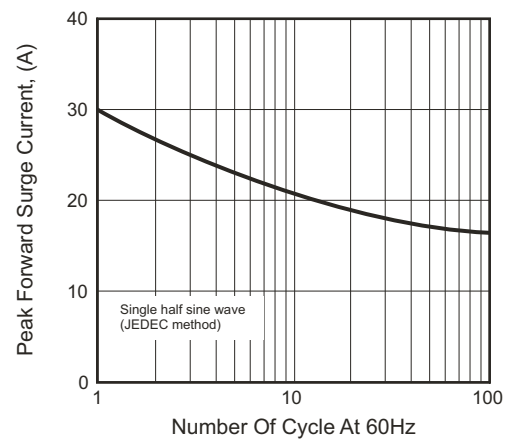


Fig.3 - Typical Junction Capacitance

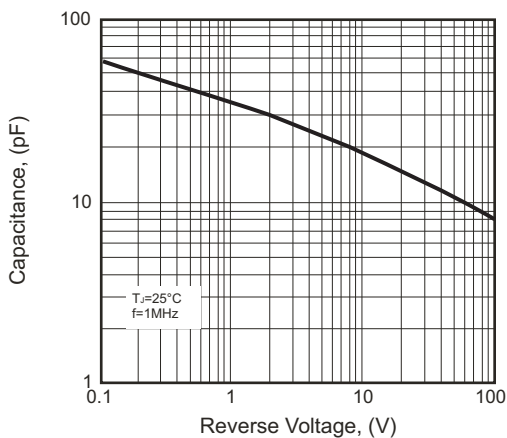


Fig.4 - Typical Forward Characteristics

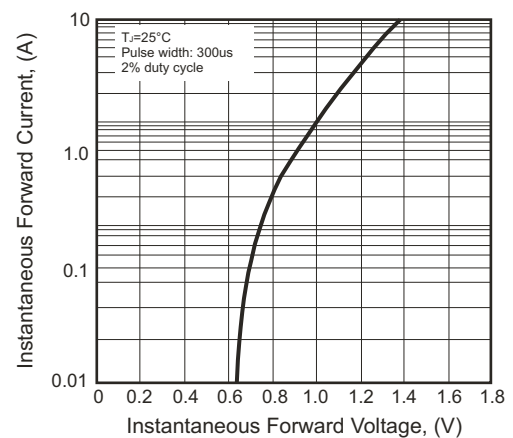
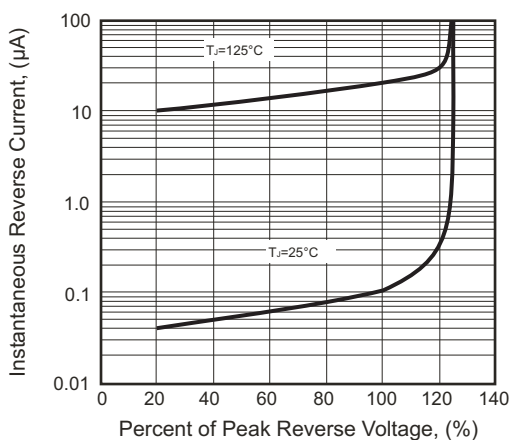
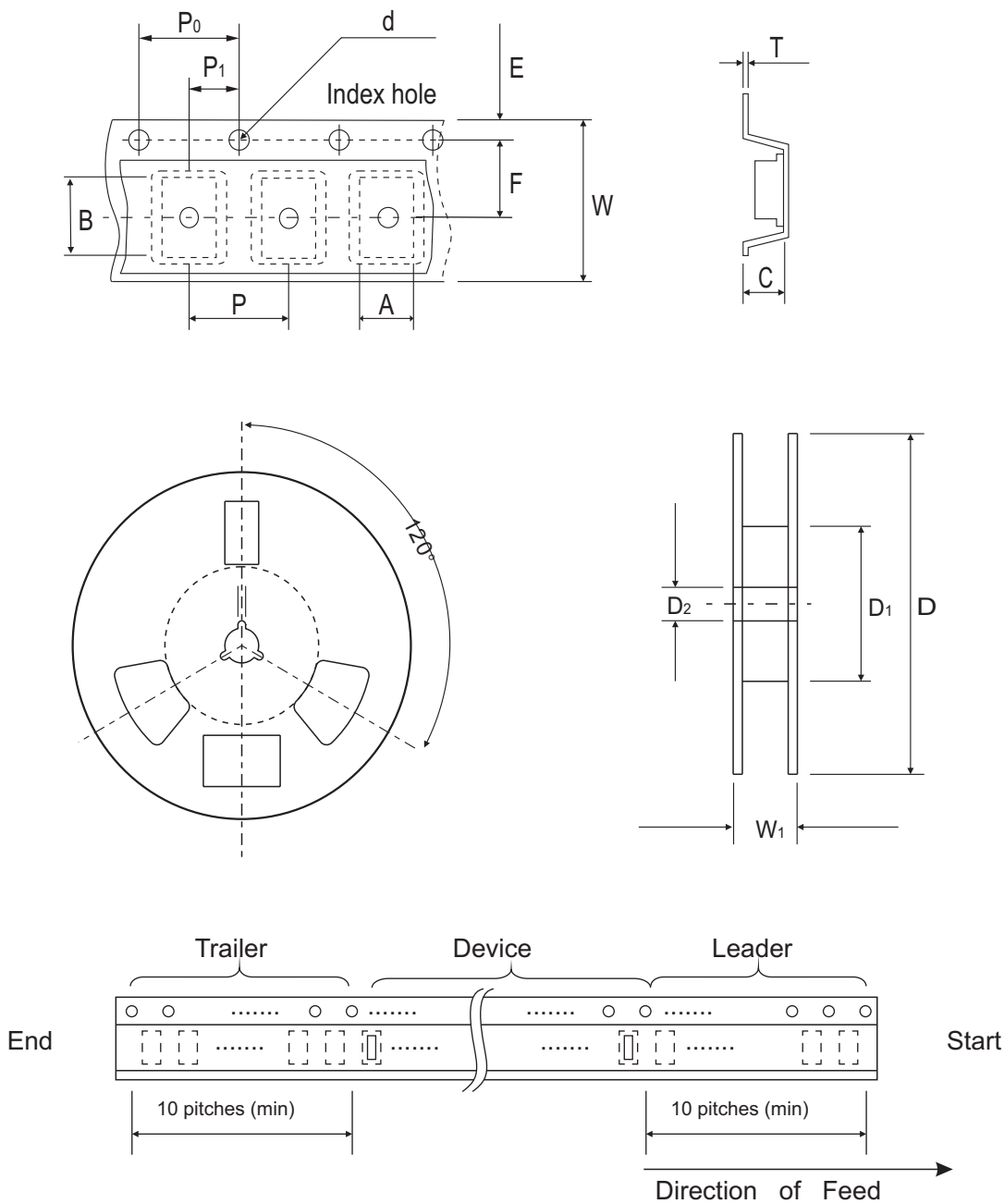


Fig.5 - Typical Reverse Characteristics



Reel Taping Specification

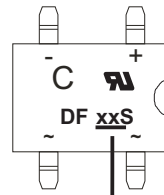


DFS	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	8.64 ± 0.10	10.41 ± 0.10	3.81 ± 0.10	1.55 ± 0.05	330	50.0 MIN.	13.00 ± 0.20
	(inch)	0.340 ± 0.004	0.409 ± 0.004	0.150 ± 0.004	0.061 ± 0.002	13	1.969 MIN.	0.512 ± 0.008

DFS	SYMBOL	E	F	P	P0	P1	T	W	W1
	(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	Packaging
DF005SP-HF	DF005S	Tube
DF01SP-HF	DF01S	Tube
DF02SP-HF	DF02S	Tube
DF04SP-HF	DF04S	Tube
DF06SP-HF	DF06S	Tube
DF08SP-HF	DF08S	Tube
DF10SP-HF	DF10S	Tube
DF005ST-HF	DF005S	Reel
DF01ST-HF	DF01S	Reel
DF02ST-HF	DF02S	Reel
DF04ST-HF	DF04S	Reel
DF06ST-HF	DF06S	Reel
DF08ST-HF	DF08S	Reel
DF10ST-HF	DF10S	Reel



XX / XXX = Product type marking code
C = Comchip Logo

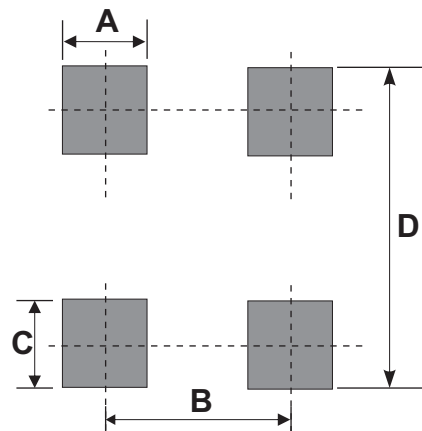
Note:

1) Suffix code after part number to specify packaging item .

Packaging	Code
TUBE PACK	P
REEL PACK	T

Suggested 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	TUBE PACK	
	TUBE (pcs)	BOX (pcs)
DFS	50	5,000

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

Mouser Electronics

Authorized Distributor

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[DF01ST-HF](#) [DF04ST-HF](#) [DF10ST-HF](#) [DF06ST-HF](#) [DF08ST-HF](#) [DF005ST-HF](#) [DF02ST-HF](#)