

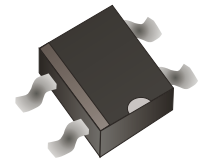
DF005S-HF Thru. DF10S-HF

Reverse Voltage: 50 to 1000V

Forward Current: 1.0A

RoHS Device

Halogen Free

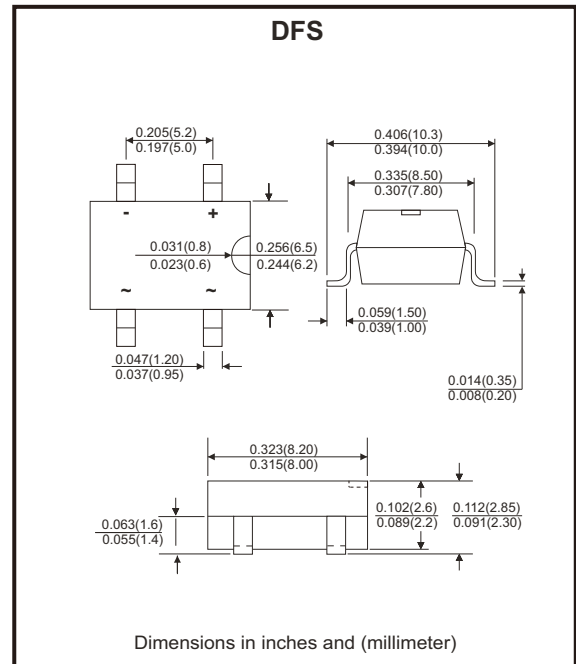


Features

- Rating to 1000V PRV.
- Ideal for printed circuit board.
- Low forward voltage drop.
- High current capability.
- The plastic material has UL flammability classification 94V-0
- UL recognized file # E349301

Mechanical Data

- Polarity: As marked on Body.
- Weight: 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 005S-HF	DF 01S-HF	DF 02S-HF	DF 04S-HF	DF 06S-HF	DF 08S-HF	DF 10S-HF	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 @ $T_A=40^\circ C$	$I_{(AV)}$	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30							A
Maximum forward voltage at 1.0A DC	V_F	1.1							V
Maximum DC reverse current @ $T_J=25^\circ C$ at rate DC blocking voltage @ $T_J=125^\circ C$	I_R	10 500							μA
$I^2 T$ rating for fusing ($t < 8.3ms$)	$I^2 t$	3.735							$A^2 s$
Typical junction capacitance per element (Note 1)	C_J	25							pF
Typical thermal resistance (Note 2)	$R_{\theta JA}$	40							$^\circ C/W$
Operating temperature range	T_J	-55 to +150							$^\circ C$
Storage temperature range	T_{STG}	-55 to +150							$^\circ C$

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 (DF005S-HF Thru. DF10S-HF)

Fig.1 - Forward Current Derating Curve

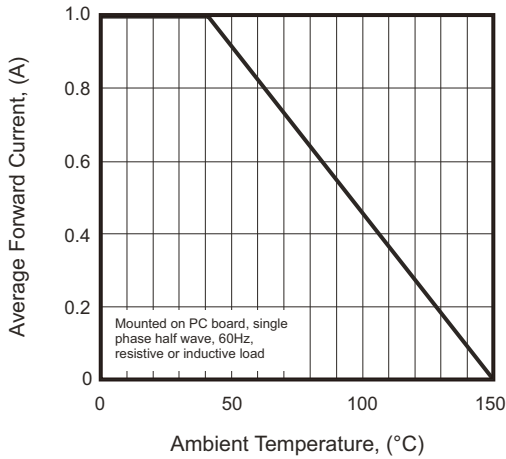


Fig.2 - Maximum Non-repetitive Surge Current

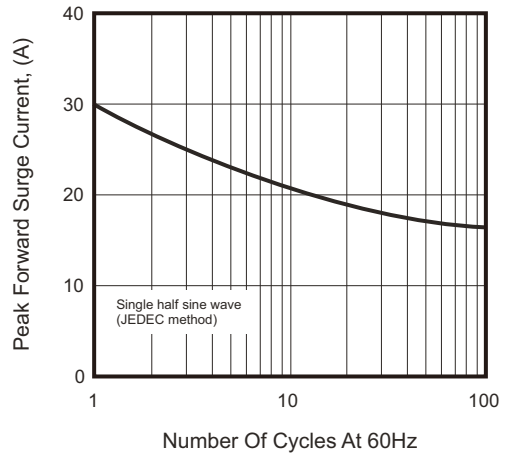


Fig.3 - Typical Junction Capacitance

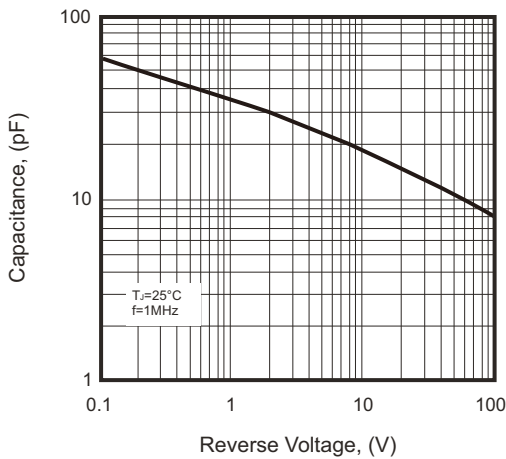


Fig.4 - Typical Forward Characteristics

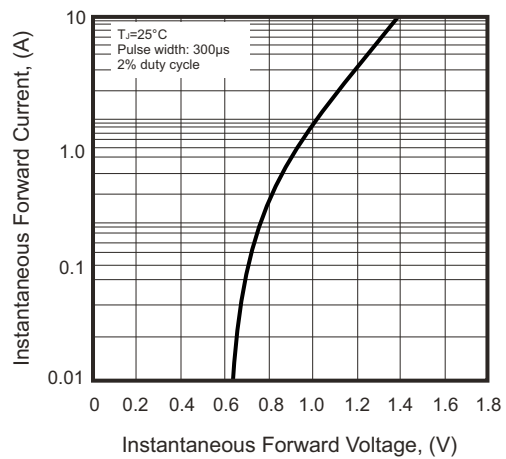
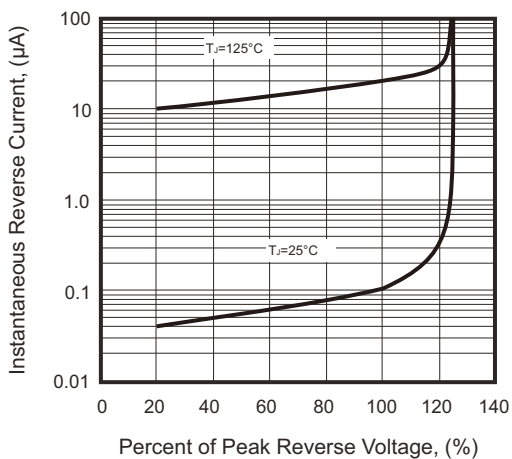
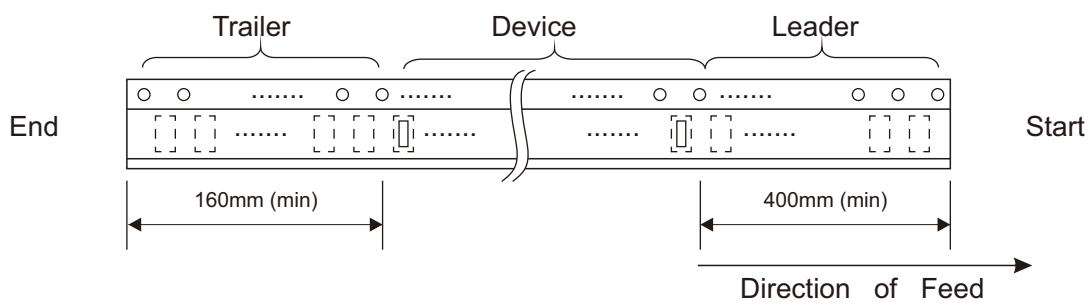
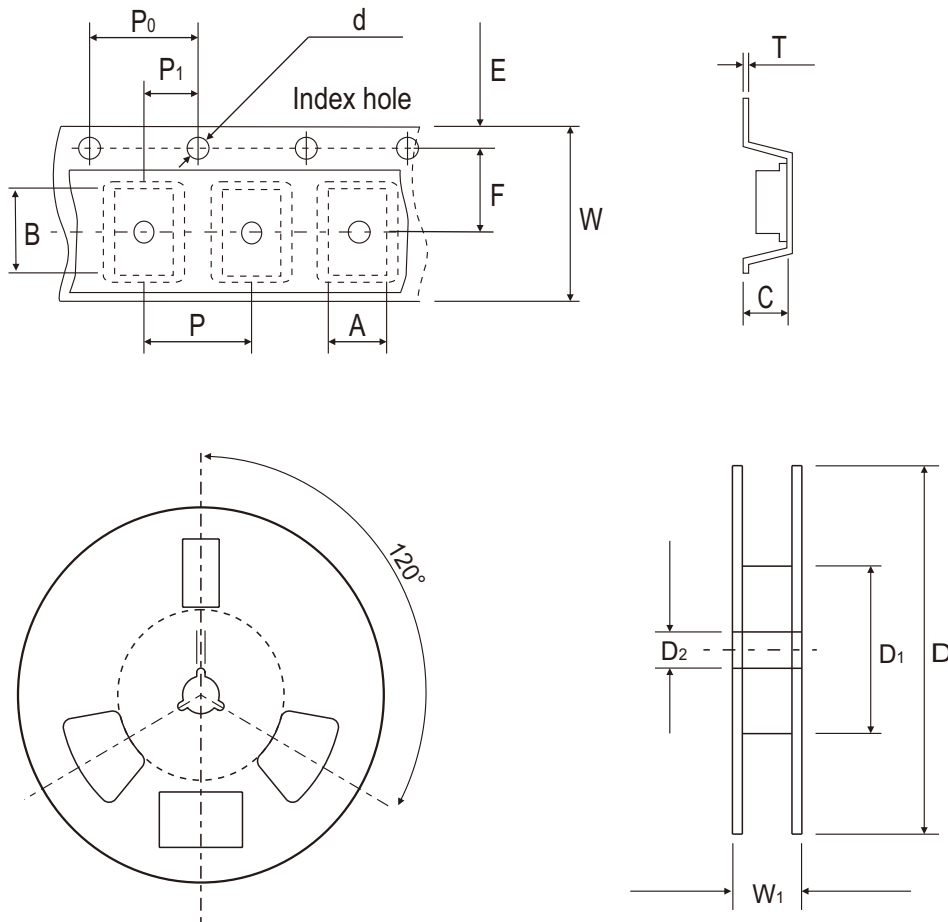


Fig.5 - Typical Reverse Characteristics



Reel Taping Specification



DFS	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(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	P ₀	P ₁	T	W	W ₁
	(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