

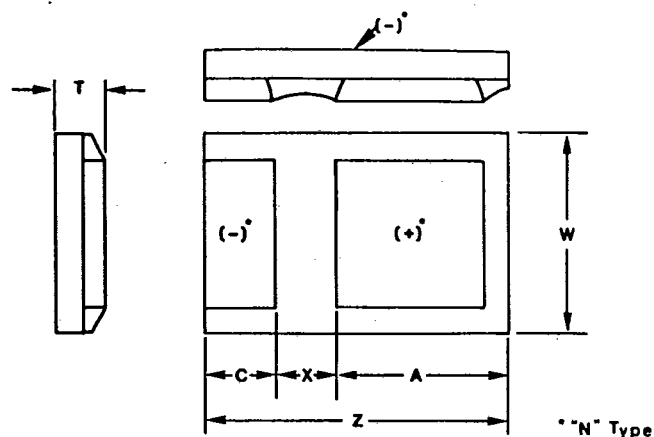
Features

- Surface mountable
- 8 mm Tape & Reel
- Low profile
- .75 to 70 amps (I_F)
- Low Cost
- Eliminates Wire Bonding

Description

The Flip-Die is constructed so that both the anode and cathode pads are on the same side, making the device useful for surface-mount applications. Like most surface-mount components, flip-die can be supplied taped and reeled and can be used with automatic pick and place equipment.

All junction areas are fully glass passivated, and a solderable gold metallization is supplied as standard. Flip-die are 100% individually electrically tested to our and your specifications. Chips are inspected for visual criteria in MIL-STD-883B, level B.



Ordering Specifier

SFDI-400-50

Switching Speed, ns

400 V_{RRM} , peak reverse voltage (-050 = 50V, etc.)

Sussex 1-amp silicon rectifier, flip-version

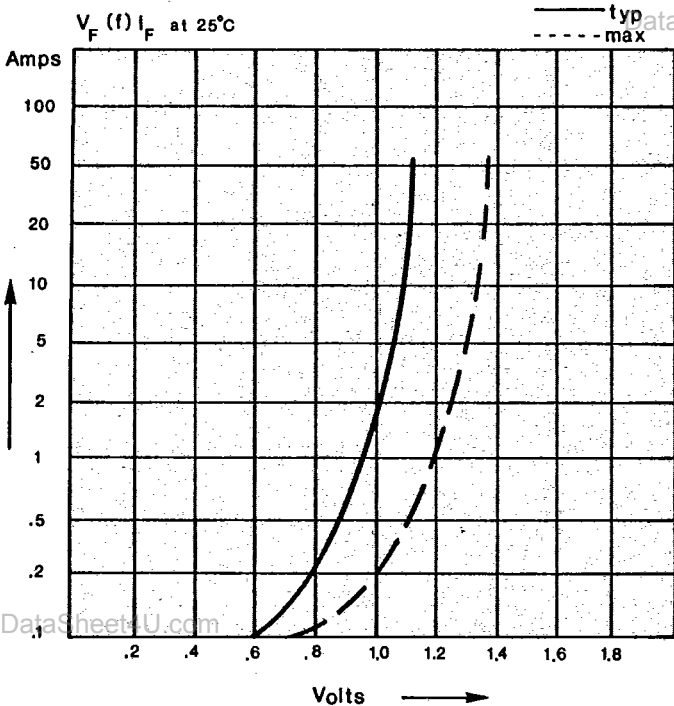
Maximum Ratings

PARAMETER	Symbol	SFD.75	SFD1	SFD1.5	SFD3	SFD16	SFD40	SFD70	UNITS
Surge Current	I_{FSM}	30	40	50	200	300	700	1200	Amps/8.3 ms
Leakage at 175°C	I_{RFM}	50	100	150	300	500	1000	1250	u/Amps
V-Non Repetitive	$I_{RSM\ max}$	1400	1400	1400	1400	1400	1400	1400	Volts/8.3 ms
Operating Temp	T_{op}	-65 to 175	-65 to 175	-65 to 175	-65 to 175	-65 to 175	-65 to 175	-65 to 175	Degrees C
Junction Temp	$T_{J\ max}$	175	175	175	175	175	175	175	Degrees C
Storage Temp	T_{st}	-65 to 190	-65 to 190	-65 to 190	-65 to 190	-65 to 190	-65 to 190	-65 to 190	Degrees C
Die Attach Temp	T_d	425	425	425	425	425	425	425	Degrees C/2 min
Dimension	W	.030	.040	.055	.085	.115	.220	.260	Inch
Dimension	A	.020	.028	.040	.065	.100	.205	.250	Inch
Dimension	T	.011	.011	.011	.011	.011	.011	.011	Inch
Dimension	C	.010	.014	.020	.033	.051	.102	.125	Inch
Dimension	X	.011	.012	.016	.020	.020	.030	.030	Inch
Dimension	Z	.046	.060	.083	.128	.175	.345	.413	Inch

Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless specified)

PARAMETER	Symbol	SFD.75	SFD1	SFD1.5	SFD3	SFD16	SFD40	SFD70	UNITS
Leakage at 25°C	I_{RFM}	1	1	5	10	10	20	25	μAmps
Peak Inverse V	P_{IV}	50	50	50	50	50	50	50	Volts—Min
Peak Inverse V	P_{IV}	1200	1200	1200	1200	1200	1200	1200	Volts—Max
Forward Current	I_F	.75	1	1.5	3	16	40	70	Amps
Forward Volts, Typ	V_F	1@1	1@1	1@1	1@3	1@12	1.2@35	1.2@65	$t = 300\mu\text{s}$ Volts at I_F (Amps)
Forward Volts, Max	V_{FM}	1.2@1	1.2@1	1.2@1	1.2@3	1.2@12	1.4@35	1.4@65	$t = 300\mu\text{s}$ Volts at I_F (Amps)
*Reverse Recovery	t_{rr}	500	500	500	500	500	500	500	ns/1-1-1/2

*Typical figure: ultra fast, to 50 n/sec, may be specified, page 32



a: .75-1 amp
b: 1.5-4 amp
c: 16-70 amp

