New Jersey Semi-Conductor Products, Inc.

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U.S.A.

SFF30

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AXIAL LEADED HERMETICALLY SEALED HIGH VOLTAGE SUPERFAST RECTIFIER DIODE

- Very low reverse recovery time
- · High thermal shock resistance
- Hermetically sealed with Metoxilite metal oxide
- Low switching losses
- Soft, non-snap off, recovery characteristics

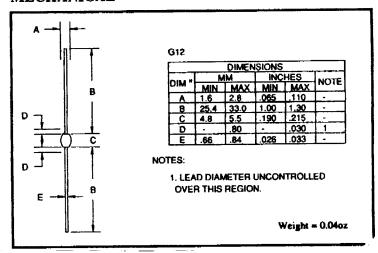
QUICK REFERENCE DATA

- $V_R = 3000V$
- $I_F = 0.36A$
- $t_{rr} = 50nS$
- $I_R = 1\mu A$

ABSOLUTE MAXIMUM RATINGS (@ 25°C unless otherwise specified)

	Symbol	SFF30	Unit
Working reverse voltage	Vrwm	3000	v
Repetitive reverse voltage	Vrrm	3000	V
Average forward current (@ 55°C, in oil)	I _{F(AV)}	0.36	A
Repetitive surge current (@ 55°C in oil)	IFRM	1.0	A
Non-repetitive surge current (tp = 8.3mS, @ VR & Timex)	IFSM	10.0	Α
Storage temperature range	Tstg	-65 to +175	°C
Operating temperature range	TOP	-65 to +175	°C

MECHANICAL



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

Quality Semi-Conductors

ELECTRICAL CHARACTERISTICS (@ 25°C unless otherwise specified)

	Symbol	SFF30	Unit
Average forward current max. (pcb mounted; $T_A = 55^{\circ}C$) for sine wave for square wave (d = 0.5)	I _{F(AV)} I _{F(AV)}	0.16 0.17	A A
Average forward current max. (oil at 55°C) for sine wave for square wave I ² t for fusing (t = 8.3mS) max.	IF(AV) IF(AV) I ² t	0.33 0.36 0.42	$egin{array}{c} A & A & A^2S & \end{array}$
Forward voltage drop max. @ I _F = 0.175A, T _j = 25°C	V _F	7.00	v
Reverse current max. @ V _{RWM} , $T_j = 25^{\circ}$ C @ V _{RWM} , $T_j = 100^{\circ}$ C	I _R	1.0 25	μ Α μ Α
Reverse recovery time max. 50mA I _F , 100mA I _R ., 25mA I _{RR} .	t _{rr}	50	nS
Junction capacitance typ. @ V _R = 5V , f = 1MHz	Cj	6.5	ρF

THERMAL CHARACTERISTICS

	Symbol	SFF30	Unit
Thermal resistance - junction to oil Stirred oil Unstirred oil Thermal resistance - junction to amb. on 0.06" thick pcb. 1 oz. copper.	Rejo	18	°C/W
	Rejo	30	°C/W
	Reja	90	°C/W