

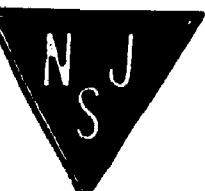
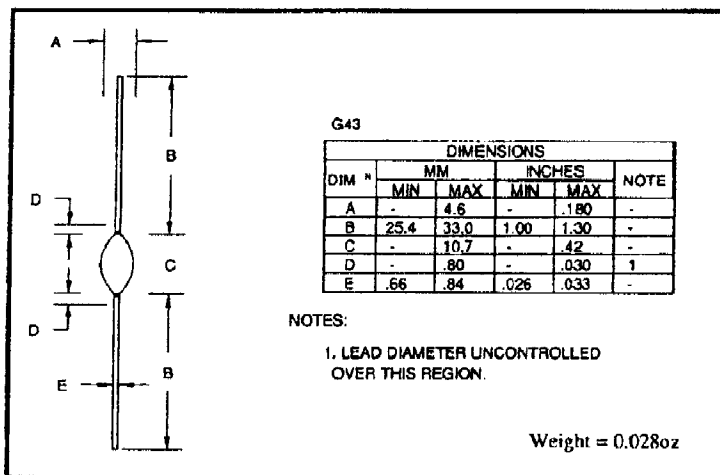
AXIAL LEADED HERMETICALLY SEALED HIGH VOLTAGE FAST RECTIFIER DIODE

- Low reverse recovery time
- High thermal shock resistance
- Hermetically sealed with Metoxilite metal oxide
- Low switching losses
- Soft, non-snap off, recovery characteristics
- $V_R = 7.5 - 10kV$
- $I_F = 290mA$
- $t_{rr} = 300nS$
- $I_R = 1\mu A$

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

	Symbol	SM75F	SM100F	Unit
Working reverse voltage	V_{RWM}	7500	10000	V
Repetitive reverse voltage	V_{RRM}	7500	10000	V
Average forward current (@ 55°C in oil)	$I_{F(AV)}$	← 0.29 →		A
Repetitive surge current (@ 55°C)	I_{FRM}	← 1.00 →		A
Non-repetitive surge current ($t_p = 8.3mS$, @ V_R & T_{jmax})	I_{FSM}	← 14.0 →		A
Storage temperature range	T_{STG}	← -65 to +175 →		°C
Operating temperature range	T_{OP}	← -65 to +175 →		°C

MECHANICAL



CHARACTERISTICS (@ 25°C unless otherwise specified)

	Symbol	SM75F · SM100F	Unit
Average forward current max. (pcb mounted; T _A = 55°C) for sine wave for square wave (d = 0.5)	I _{F(AV)}	← 0.11 →	A
	I _{F(AV)}	← 0.12 →	A
Average forward current max. (unstirred oil at 55°C) for sine wave for square wave	I _{F(AV)}	← 0.27 →	A
	I _{F(AV)}	← 0.29 →	A
I ² t for fusing (t = 8.3mS) max.	I ² t	← 0.81 →	A ² S
Forward voltage drop max. @ I _F = 100mA, T _j = 25°C	V _F	← 12.0 →	V
Reverse current max. @ V _{RWM} , T _j = 25°C @ V _{RWM} , T _j = 100°C	I _R	← 1.0 →	μA
	I _R	← 20 →	μA
Reverse recovery time max. 50mA I _F to 100mA I _R . Recover to 25mA I _{RR}	t _{rr}	← 300 →	nS
Junction capacitance typ. @ V _R = 5V, f = 1MHz	C _j	← 3.0 →	pF
Thermal resistance - junction to oil Stirred oil	R _{θJO}	← 20 →	°C/W
Unstirred oil	R _{θJO}	← 28 →	°C/W
Thermal resistance - junction to amb. on 0.06" thick pcb. 1oz copper.	R _{θJA}	← 91 →	°C/W