Santa Ana, CA
Microsemi
Progress Powered by Technology

2830 S. Fairview St.
Santa Ana, CA 92704
PH: (714) 979-8220
FAX: (714) 966-5256

MSATS14S40L
MSATS14S40L

PRELIMINARY

40 Volts
250 Amps
14.5KW

TRANSIENT VOLTAGE SUPPRESOR

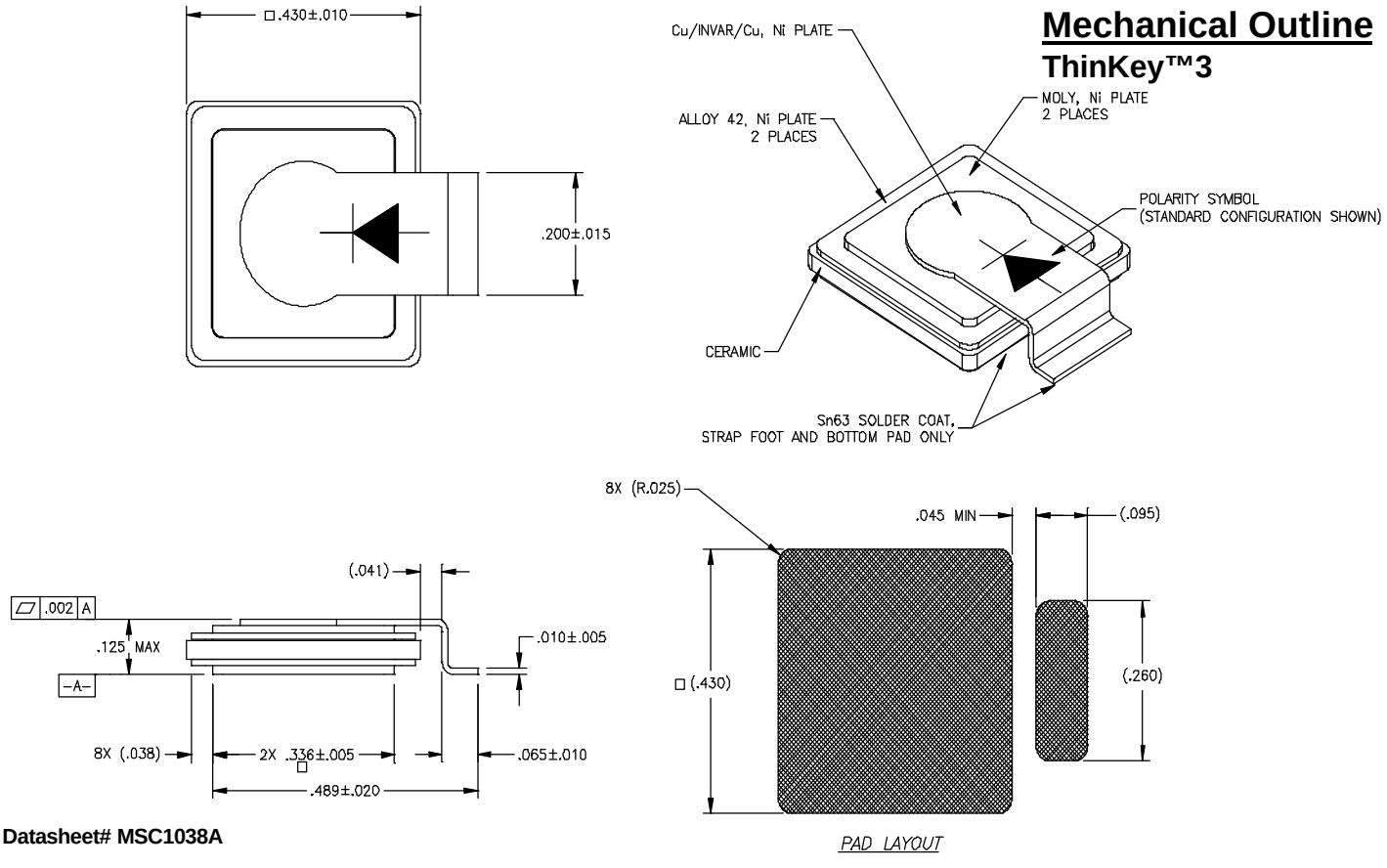
Features

- Very High Surge Rating - 14,500 Watts peak power
- Hermetically sealed, low profile ceramic surface mount power package
- Low package inductance
- Very low thermal resistance
- Available as standard polarity (strap is anode: MSATS14S40L) and reverse polarity (strap is cathode: MSATS14S40LR)

Maximum Ratings @ 25°C (unless otherwise specified)

DESCRIPTION	SYMBOL	MAX.	UNIT
Peak Pulse Power (1ms)	Ppp	14500	Watts
tclamping :0 volts to VBR min (theoretical)		< 1	picosecond
Forward Surge Rating, 1/120 sec @25°C	I_{FSM}	TBD	Amps
Junction Temperature Range	T_j	-65 to +175	°C
Storage Temperature Range	T_{stg}	-65 to +175	°C
Thermal Resistance, Junction to Case:	θ_{JC}	0.2	°C/W

Mechanical Outline
ThinKey™3



Datasheet# MSC1038A

MSATS14S40L
MSATS14S40LR

Santa Ana, CA
Microsemi
Progress Powered by Technology

Electrical Parameters @25°C

DESCRIPTION	SYMBOL	CONDITIONS	MIN	TYP.	MAX	UNIT
Breakdown Voltage	V_{BR}	I_{BR} = 1mA 25°C	40	43	n/a	V
Rated Standoff Voltage	V_R		36			V
Reverse Leakage	I_R	V_R = 36V		0.3	5	µA
Peak Pulse Current	I_{PP}	tr=10us, tp=1ms (see fig.1)			250	A
Clamping Voltage	V_{C1}	I_{PP} = 250A tr=10us, tp=1ms		55	58	
Clamping Voltage	V_{C2}	I_{PP} = 200A tr=6us, tp=70us		48	51	
Temp. Coef.of V_{BR}					TBD	%/C

Fig.1 Pulse Waveform

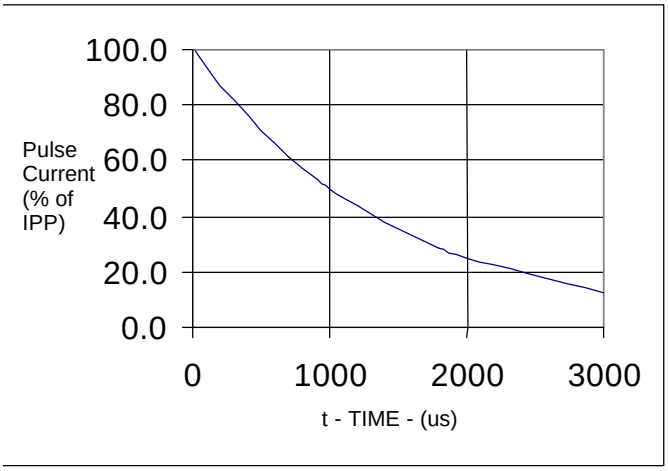


Fig.2 Derating Curve