SEOA THRU SEOM

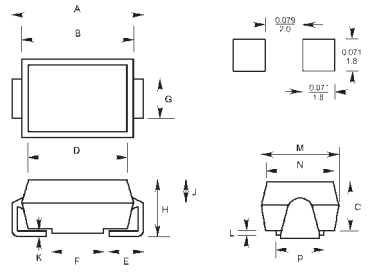
SURFACE MOUNT HIGH EFFICIENCY RECTIFIER

Reverse Voltage - 50 to 1000 Volts
Forward Current - 1.5 Amperes

Features

- For surface mounted applications
- Low profile package
- Built-in strain relief
- Easy pick and place
- Ultrafast recovery times for high efficiency
- Plastic package has Underwriters Laboratory Flammability classification 94V-0
- High temperature soldering: 260℃/10 seconds at terminals

SMA



Mechanical Data

- **Case:** SMA, molded plastic
- **Terminals:** Solder plated solderable per MIL-STD-750, method 2026
- **Polarity:** Indicated by cathode band
- **Weight:** 0.004 ounce, 0.11 gram

DIMENSIONS					
DIM	inches		mm		Note
	Min.	Max.	Min.	Max.	
A	0.216	0.226	5.48	5.74	
B	0.176	0.182	4.48	4.63	
C	0.094	0.100	2.40	2.55	
D	0.170	0.176	4.33	4.48	
E	0.039	0.055	1.00	1.40	
F	0.080	0.081	2.03	2.07	
G	0.068	0.083	1.72	2.10	
H	0.112	0.118	2.85	3.00	
J	0.057	-	1.44	-	
K	-	0.018	-	0.45	
L	0.016	-	0.40	-	
M	0.109	0.115	2.77	2.93	
N	0.105	0.107	2.67	2.73	
P	0.078	0.081	2.00	2.05	

Maximum Ratings and Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Resistive or inductive load.
For capacitive load, derate current by 20%.

	Symbols	SEOA	SEOB	SEOD	SEOE	SEOG	SEOJ	SEOK	SEOM	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	1000	Volts
Maximum average forward rectified current, at T_L=90℃	$I_{(AV)}$	1.5								Amps
Peak forward surge current, 8.3mS single half sine-wave superimposed on rated load (MIL-STD-750D 4066 method) T_A=55℃	I_{FSM}	50.0								Amps
Maximum instantaneous forward voltage at 1.5A	V_F	1.00			1.40		1.70			Volts
Maximum DC reverse current at rated DC blocking voltage T_A=25℃ / T_A=100℃	I_R	10.0 / 500.0								μA
Maximum Reverse recovery time (Note 1) T_J=25℃	T_{rr}	50					100			nS
Typical junction capacitance (Note 2)	C_J	50.0								pF
Maximum thermal resistance (Note 3)	$R_{\theta JL}$	20.0								℃/W
Operating and storage temperature range	T_J, T_{STG}	-50 to +150								℃

Notes:

(1) Reverse recovery test conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

(2) Measured at 1.0MHz and applied reverse voltage of 4.0 volts

(3) 8.0mm² (0.013mm thick) land areas

RATINGS AND CHARACTERISTIC CURVES

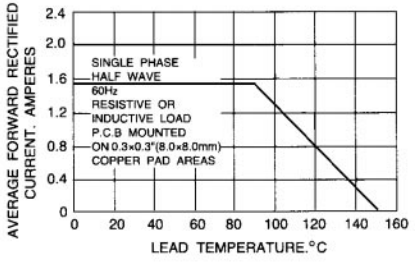


FIG. 1 – DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

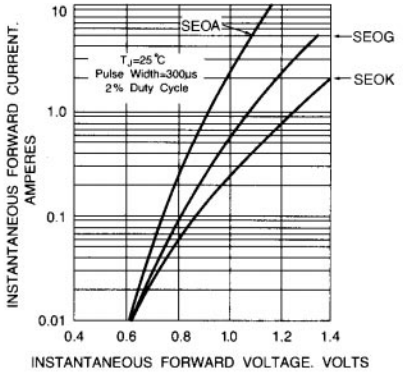


FIG. 2 – TYPICAL FORWARD CHARACTERISTICS PER ELEMENT

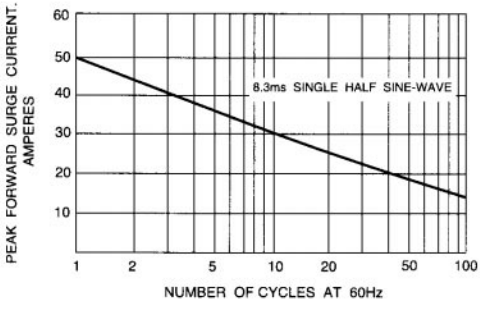


FIG. 3 – MAXIMUM FORWARD SURGE CURRENT

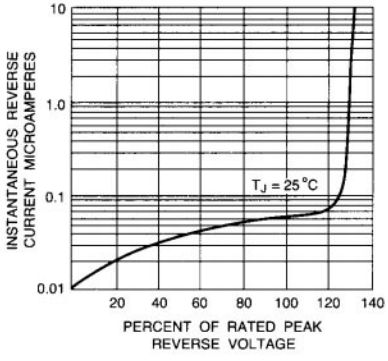


FIG. 4 – TYPICAL REVERSE CHARACTERISTICS

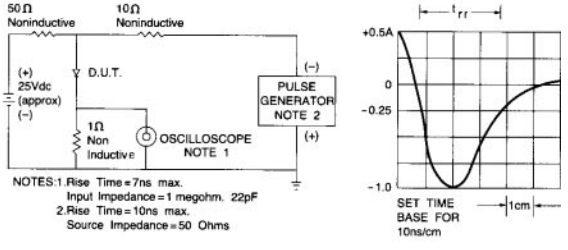


FIG. 5 – REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM