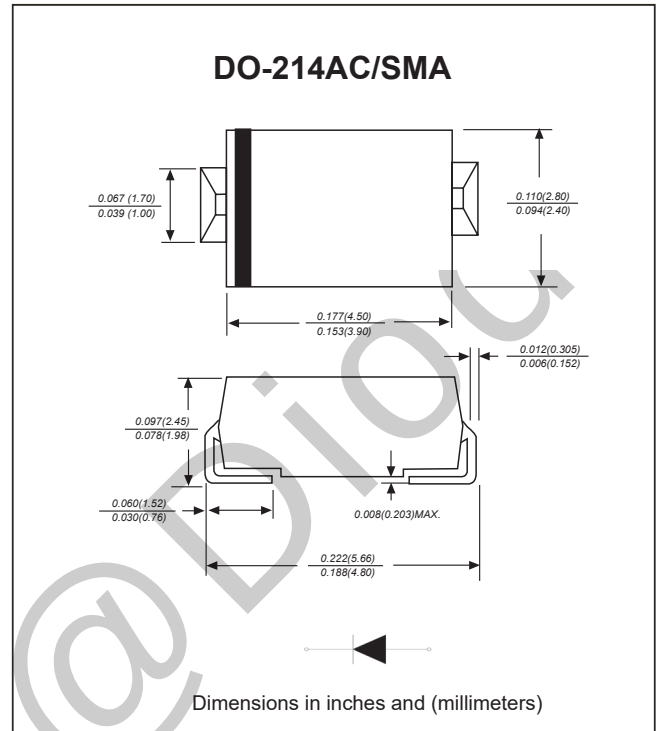


Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250°C/10 seconds at terminals

MECHANICAL DATA

- Case: Molded plastic body
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : Polarity symbol marking on body
- Mounting Position: Any
- Weight : 0.0023 ounce, 0.07grams



Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	ES1A	ES1B	ES1C	ES1D	ES1F	ES1G	ES1J	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	600	V
Maximum average forward rectified current at T _L =100°C	I _(AV)	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0A	V _F	0.95				1.25		1.7	V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	5.0 500							μA
Maxinum reverse recovery time(Note 1)	T _{rr}	35							ns
Typical junction capacitance (Note2)	C _J	18.0							pF
Typical thermal resistance	R _{qJA}	80.0							°C/W
Operating junction and storage temperature range	T _J ,T _{STG}	-55 to +150							°C

Note: 1. Reverse recovery time test condition: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Suggested Soldering Temperature Profile

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

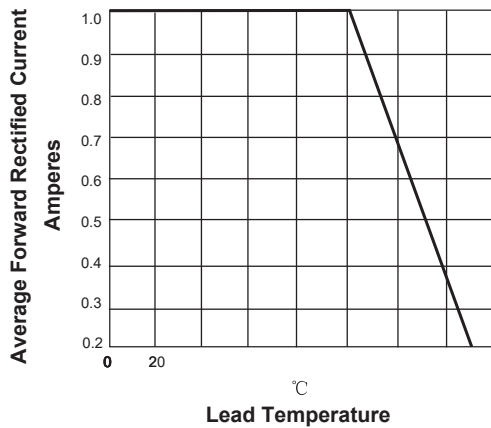


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

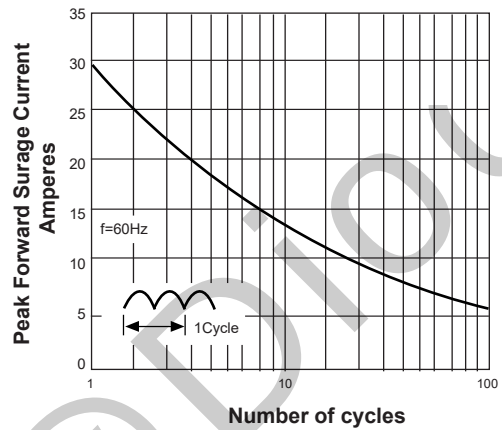


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

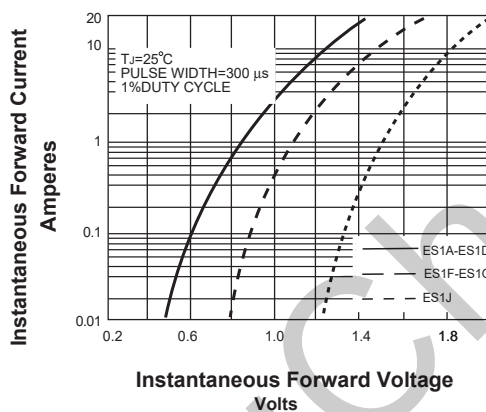
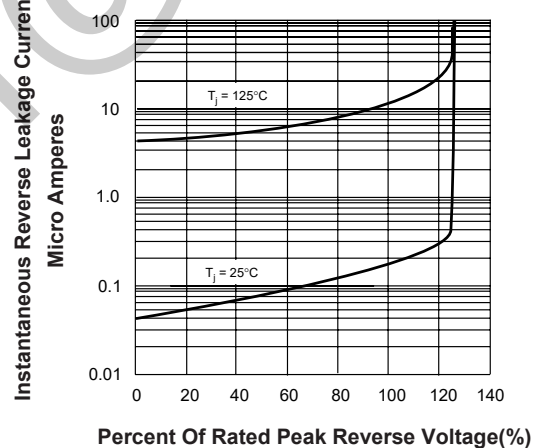
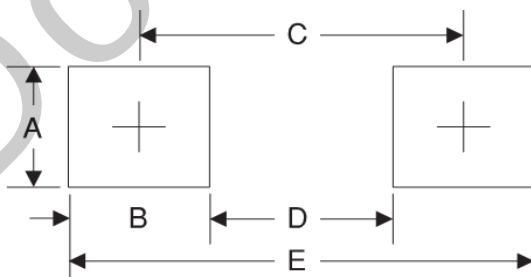


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

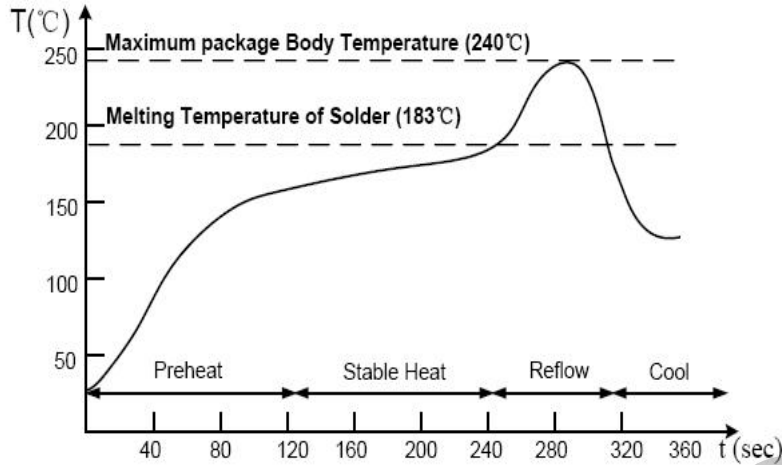


Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.68	0.066
B	1.52	0.060
C	3.90	0.154
D	2.41	0.095
E	5.45	0.215

Suggested Soldering Temperature Profile

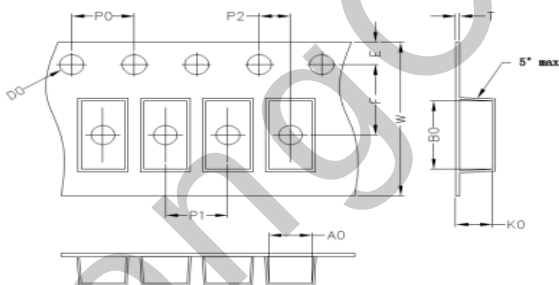


Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Carrier Dimension(mm)



A0	B0	K0	D0	E	F
2.80	5.30	2.36	1.55	1.75	5.50
P0	P1	P2	T	W	Tolerance
4.0	4.0	2.0	0.25	12	0.1

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