

Surface Mount Rectifiers

ER5A--ER5J

FEATURES

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with Alcohol ,Isopropanol and similar solvents
- The plastic material carries U/L recognition 94V-0



Lead-free



MECHANICAL DATA

- Case: DO-214AB molded plastic
- Terminals: Solder able per MIL- STD-202,Method 208
- Polarity: Color band denotes cathode
- Weight: 0.007 ounces,0.21 grams
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave,60 Hz, resistive or inductive load. For capacitive load, derate by 20%.

		ER5A	ER5B	ER5C	ER5D	ER5E	ER5G	ER5J	UNITS
Maximum recurrent 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 @T _A =75°C	I _{F(AV)}	5.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	I _{FSM}	150							A
Maximum instantaneous forward voltage @5.0 A	V _F	0.95				1.25		1.7	V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	5.0 100							μ A
Typical reverse recovery time (Note1)	t _{rr}	35							ns
Typical junction capacitance (Note2)	C _J	95							p F
Typical thermal resistance (Note3)	R _{θJA}	20							°C/W
Operating junction temperature range	T _J	- 55 ----- + 150							°C
Storage temperature range	T _{STG}	- 55 ----- + 150							°C

NOTE: 1. Measured with $I_F=0.5A$, $I_R=1A$, $t_{rr}=0.25A$

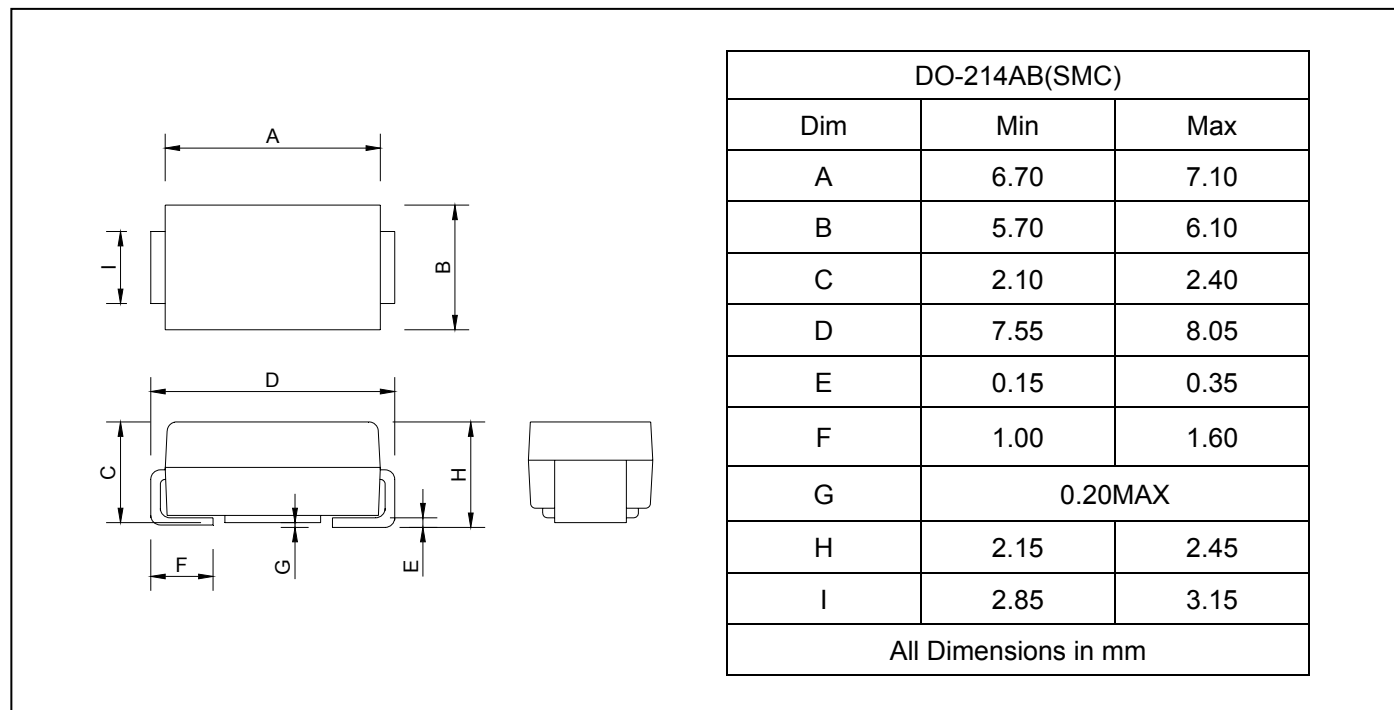
2. Measured at 1.0MHZ and applied reverse voltage of 4.0VDC

3. Thermal resistance junction to ambient.

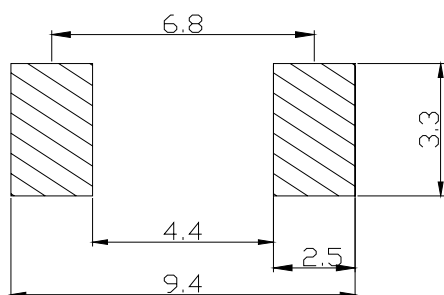
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PACKAGE OUTLINE DIMENSIONS



SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

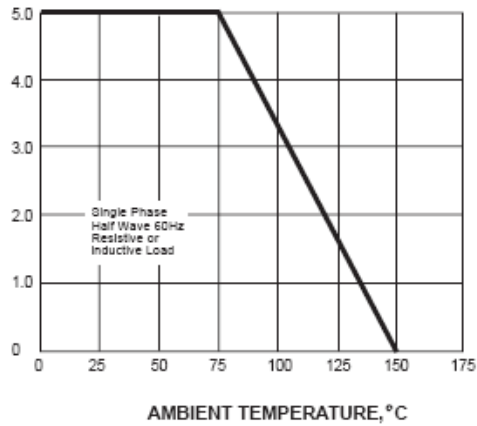
Device	Package	Shipping
ER5A--ER5J	DO-214AB(SMC)	3000/Tape&Reel

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AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

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

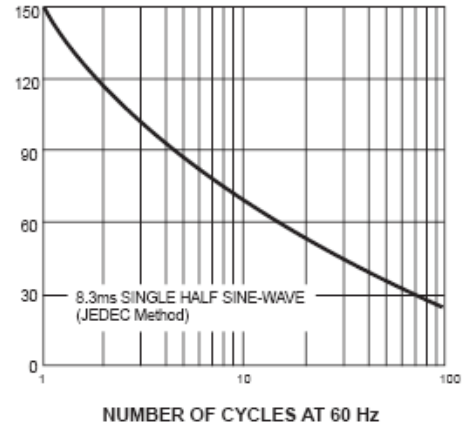
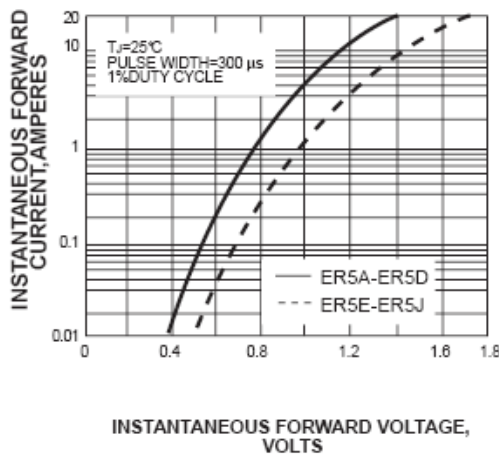


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MICROAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

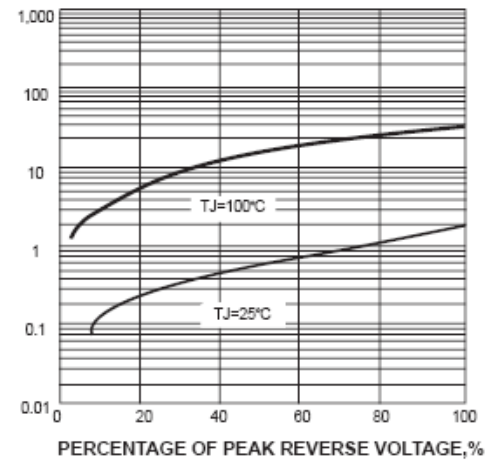
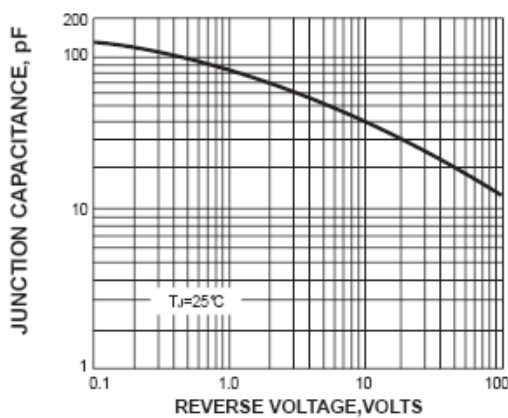


FIG. 5-TYPICAL JUNCTION CAPACITANCE



TRANSIENT THERMAL IMPEDANCE,
°C/W

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

