

SURFACE MOUNT RECTIFIERS

VOLTAGE RANGE: 500 --- 600 V
CURRENT: 2.0 A

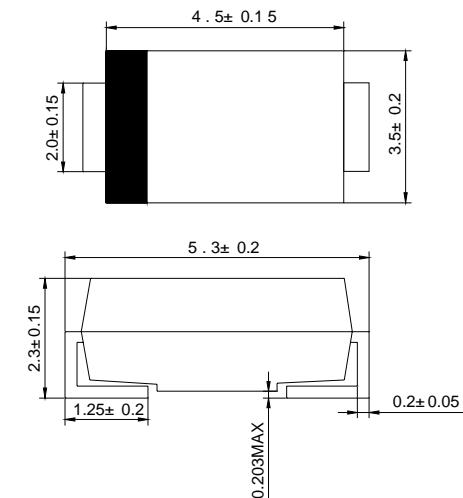
FEATURES

- ◇ 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

MECHANICAL DATA

- ◇ Case: JEDEC DO-214AA, molded plastic
- ◇ Terminals: Solderable per MIL-STD-202, Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.003 ounces, 0.093 grams
- ◇ Mounting position: Any

DO-214AA(SMB)



Dimensions in millimeters

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%.

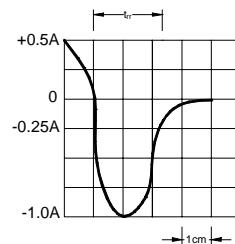
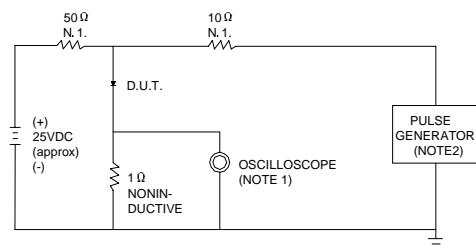
		ES2H	ES2J	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	500	600	V
Maximum RMS voltage	V_{RMS}	350	420	V
Maximum DC blocking voltage	V_{DC}	500	600	V
Maximum average forward rectified current @ $T_A=110^\circ\text{C}$	$I_{F(AV)}$	2.0		A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @ $T_J=125^\circ\text{C}$	I_{FSM}	50.0		A
Maximum instantaneous forward voltage at 2.0 A	V_F	1.70		V
Maximum reverse current @ $T_A=25^\circ\text{C}$ at rated DC blocking voltage @ $T_A=125^\circ\text{C}$	I_R	5.0 350		μA
Typical reverse recovery time (Note1)	t_{rr}	35		ns
Typical junction capacitance (Note2)	C_J	18		pF
Typical thermal resistance (Note3)	R_{QJA}	40		$^\circ\text{C}/\text{W}$
Operating junction temperature range	T_J	-55 ---- +150		$^\circ\text{C}$
Storage temperature range	T_{STG}	-55 ---- +150		$^\circ\text{C}$

NOTE: 1. Measured with $I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{rr}=0.25\text{A}$.www.diode.kr

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient and junction to lead P.C.B. mounted on 0.27"X0.27"(7.0X7.0mm²) copper pad areas

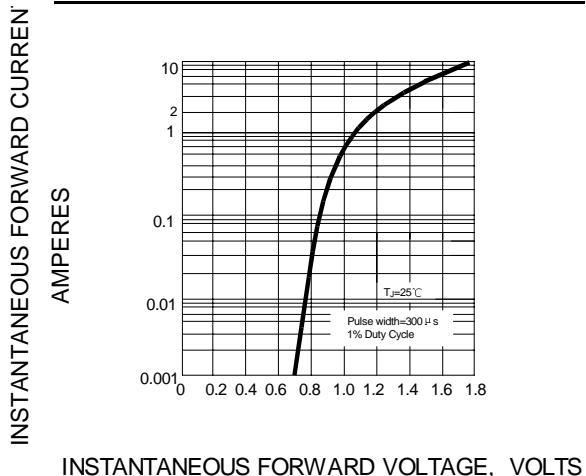
FIG.1 -- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:
1.RISE TIME = 7ns MAX.INPUT IMPEDANCE = 1MΩ.22pF.
2.RISE TIME =10ns MAX.SOURCE IMPEDANCE=50 Ω.

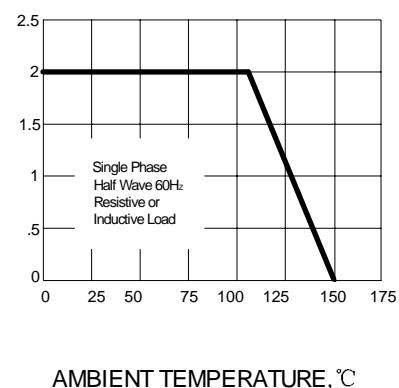
SET TIME BASE FOR 20/30 ns/cm

FIG.2 -- TYPICAL FORWARD CHARACTERISTIC



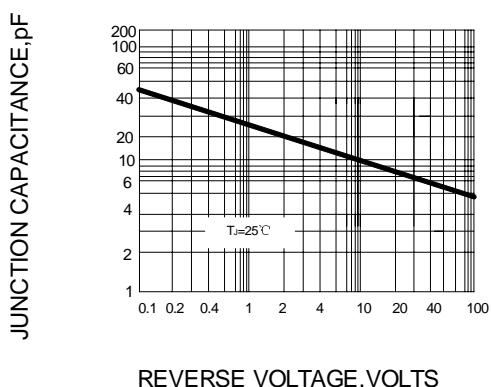
INSTANTANEOUS FORWARD CURRENT
AMPERES

FIG.3 -- FORWARD DERATING CURVE



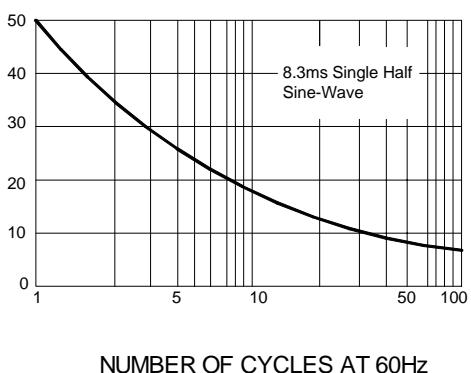
AMBIENT TEMPERATURE, °C

FIG.4 -- TYPICAL JUNCTION CAPACITANCE



JUNCTION CAPACITANCE,pF
REVERSE VOLTAGE, VOLTS

FIG.5 -- PEAK FORWARD SURGE CURRENT



NUMBER OF CYCLES AT 60Hz