DSK Diode Semiconductor Korea **ES3AB--- ES3GB**

SURFACE MOUNT RECTIFIERS

VOLTAGE RANGE: 50 --- 400 V
CURRENT: 3.0 A

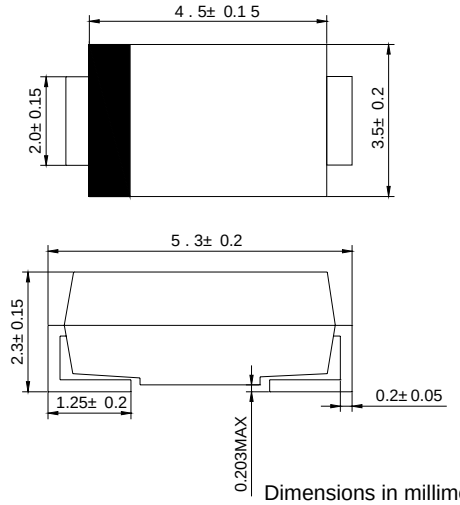
FEATURES

- ◇ 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 gram
- ◇ Mounting position: Any

DO-214AA(SMB)



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

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

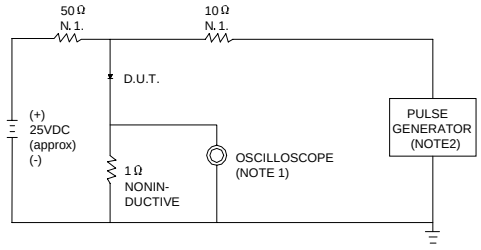
		ES3AB	ES3BB	ES3CB	ES3DB	ES3GB	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	150	200	400	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	280	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	400	V
Maximum average forward rectified current @T_A=100℃	$I_{F(AV)}$	3.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	100					A
Maximum instantaneous forward voltage at3.0 A	V_F	0.95				1.25	V
Maximum reverse current @T_A=25℃	I_R	10					μA
at rated DC blocking voltage @T_A=125℃		500					
Typical reverse recovery time (Note1)	t_{rr}	35					ns
Typical junction capacitance (Note2)	C_J	45					pF
Typical thermal resistance	$R_{\theta JA}$	40					℃/W
Operating junction temperature range	T_J	- 55 ---- + 150					℃
Storage temperature range	T_{STG}	- 55 ---- + 150					℃

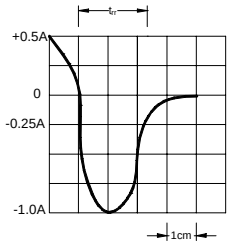
NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

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

3. Thermal resistance f rom 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

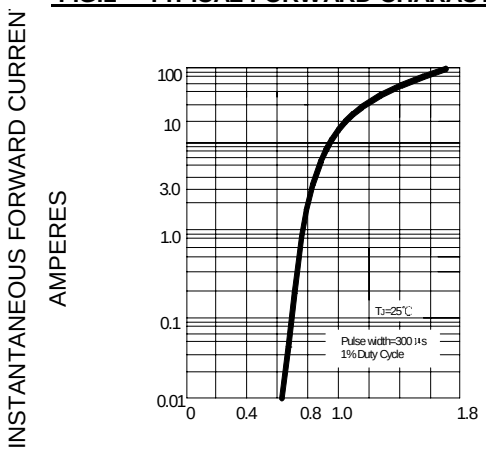


FIG.3 -- FORWARD DERATING CURVE

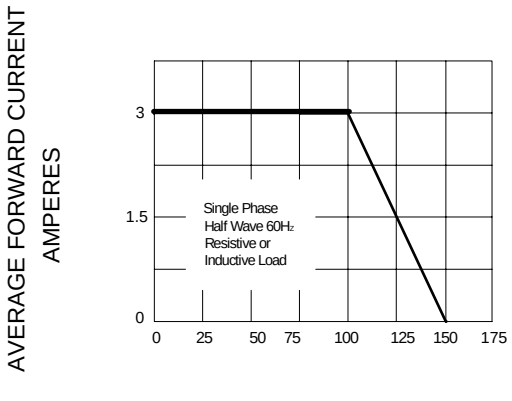


FIG.4 -- TYPICAL JUNCTION CAPACITANCE

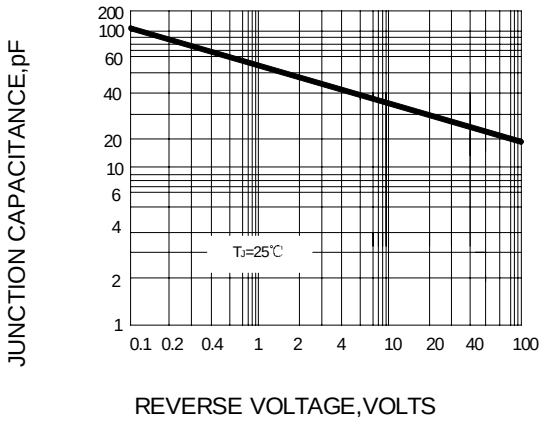


FIG.5 -- PEAK FORWARD SURGE CURRENT

