DATA SHEET

SEMICONDUCTOR

EK3A~EK3J

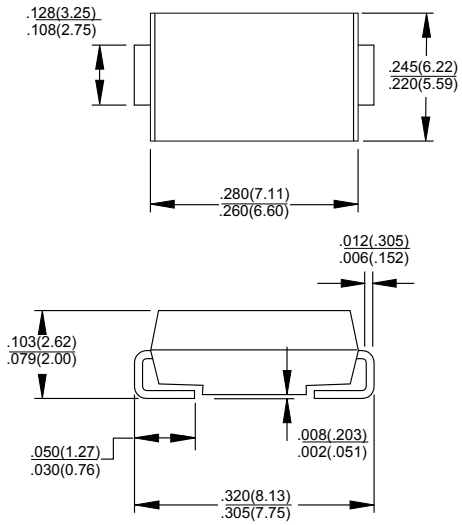
SURFACE MOUNT SUPERFAST RECTIFIER

VOLTAGE - 50 to 600 Volts CURRENT - 3.0 Ampere

FEATURES

- For surface mounted applications
- High temperature metallurgically bonded-no compression contacts as found in other diode-constructed rectifiers
- Glass passivated junction
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- Complete device submersible temperature of 260°C for 10 seconds in solder bath
- High temperature soldering : 260°C / 10 seconds at terminals
- Pb free product at available : 99% Sn above meet RoHS environment substance directive request

SMC/DO-214AB Unit:inch(mm)



MECHANICAL DATA

- Case: JEDEC DO-214AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Indicated by cathode band
- Standard packaging: 12mm tape (EIA-481)
- Weight: 0.007 ounce, 0.21 gram

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 current by 20%.

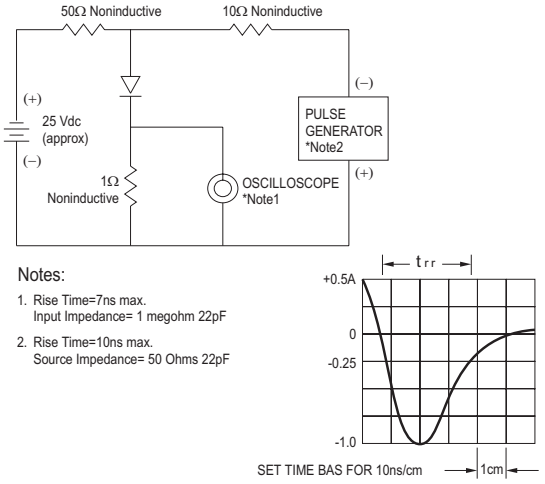
	EK3A	EK3B	EK3C	EK3D	EK3E	EK3G	EK3J	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current, at TL=75℃	3.0							A
Peak Forward Surge Current 8.3ms single half sinewave superimposed on rated load(JEDEC method)	100.0							A
Maximum Instantaneous Forward Voltage at 3.0A	0.95				1.25		1.70	V
Maximum DC Reverse Current TA=25℃	5.0							μA
At Rated DC Blocking Voltage TA=100℃	200							μA
Maximum Reverse Recovery Time (Note 1)	35.0							nS
Typical Junction capacitance (Note 2)	45.0							pF
Typical Thermal Resistance (Note 3) RθJA	16							℃/W
Operating and Storage Temperature Range TJ	-55 to +150							℃

NOTES:

1. Reverse Recovery Test Conditions: IF=0.5A, IR=1.0A, Irr=0.25A
2. Measured at 1 MHz and applied Vr = 4.0 volts.
3. 8.0 mm2 (.013mm thick) land areas.

DEVICE CHARACTERISTICS

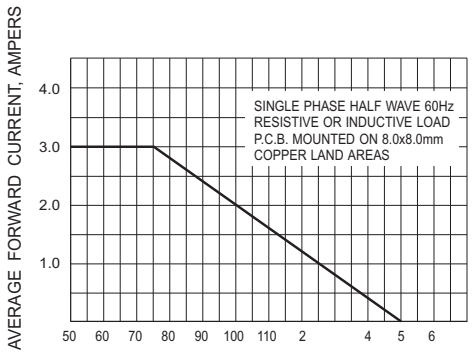
EK3A~EK3J



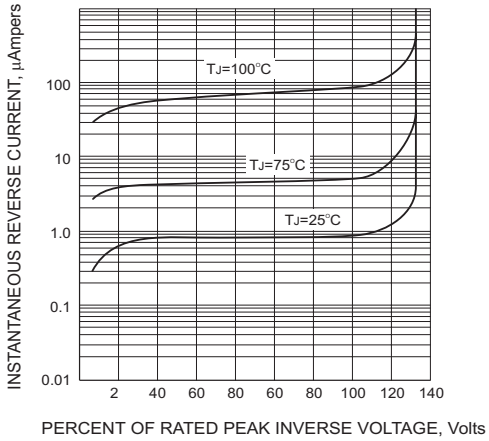
Notes:

1. Rise Time=7ns max.
   Input Impedance= 1 megohm 22pF
2. Rise Time=10ns max.
   Source Impedance= 50 Ohms 22pF

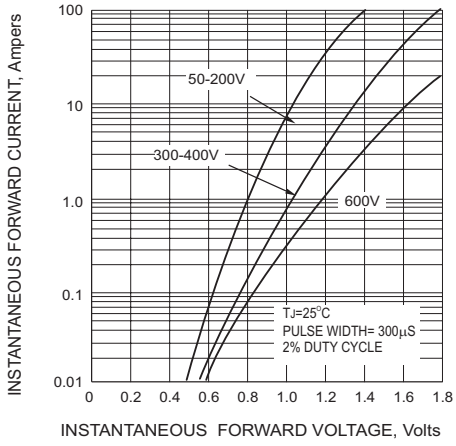
REVERSE RECOVERY TIME CHARACTERISTIC AND TEST DIAGRAM



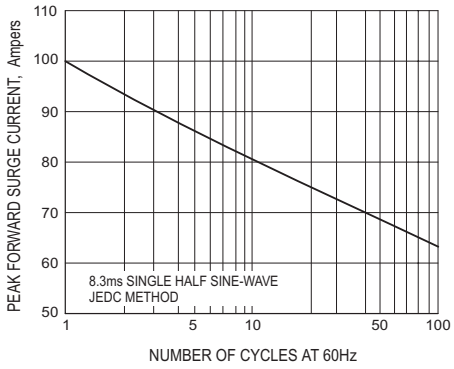
FORWARD CURRENT DERATING CURVE



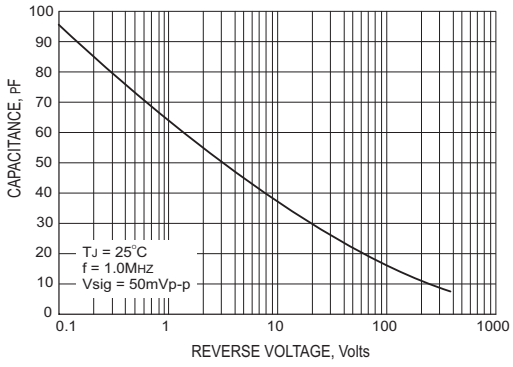
TYPICAL REVERSE CHARACTERISTICS



TYPICAL FORWARD CHARACTERISTICS



MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE