YEA SHIN TECHNOLOGY CO. , LTD

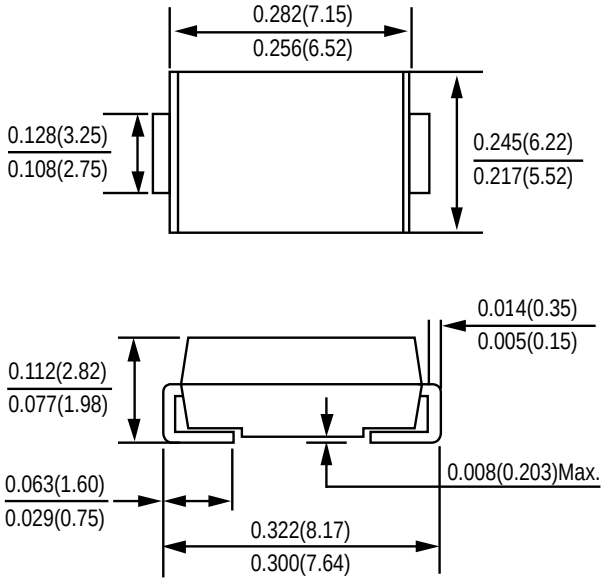
EK5A THRU EK5J

SURFACE MOUNT SUPERFAST RECTIFIER
VOLTAGE - 50 to 600 Volts CURRENT - 5.0 Ampere

FEATURES

- For surface mounted applications
- Glass passivated junction
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

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



MECHANICAL DATA

- Case：DO-214AB(SMC)
- Terminals：Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity：Indicated by cathode band

Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	EK5A	EK5B	EK5C	EK5D	EK5E	EK5G	EK5J	Unit
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
Average Rectified Output Current	I_F	5							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I_{FSM}	100							A
Forward Voltage @ I_F=5A	V_F	0.98				1.30		1.75	V
Peak Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=125°C	I_R	5 200							uA
Maximum Reverse Recovery Time (NOTE 1)	T_{rr}	35							nS
Typical Junction Capacitance (NOTE 2)	C_J	45				30			pF
Typical Thermal Resistance	$R_{\theta JL}$	17							°C/W
Operating and Storage Temperature Range	T_J , T_{STG}	-55 to +150							°C

NOTES：

1. Reverse Recovery Test Conditions：I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

DEVICE CHARACTERISTICS

EK5A THRU EK5J

FIG. 1-Forward Current Derating Curve

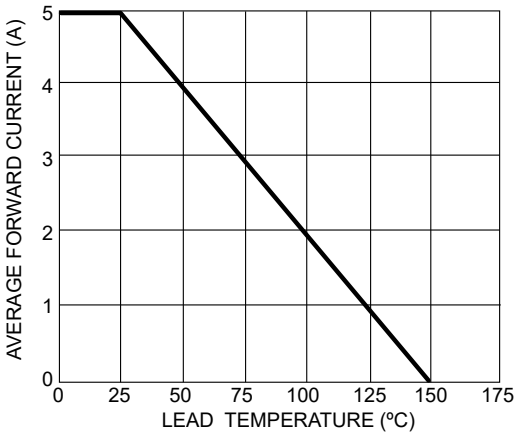


FIG. 2-Typical Forward Characteristics

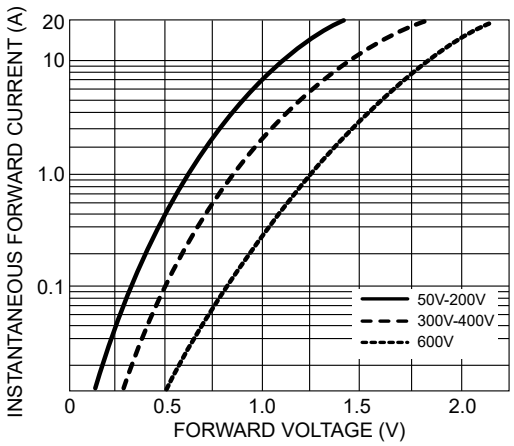


FIG. 3-Maximum Non-Repetitive Forward Surge Current

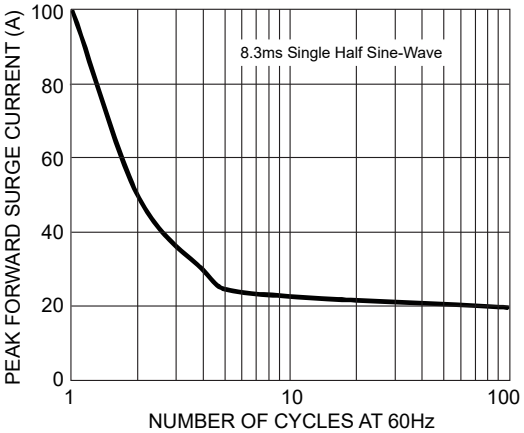


FIG. 4-Typical Reverse Characteristics

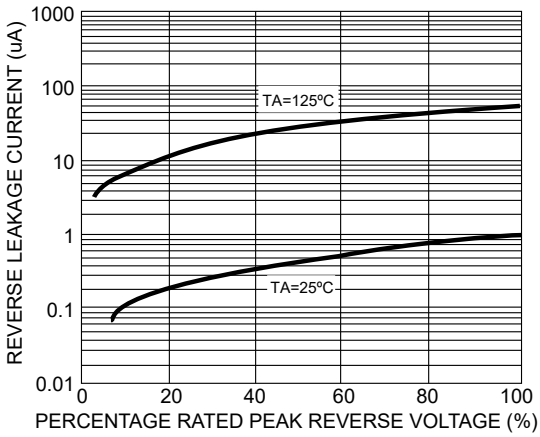
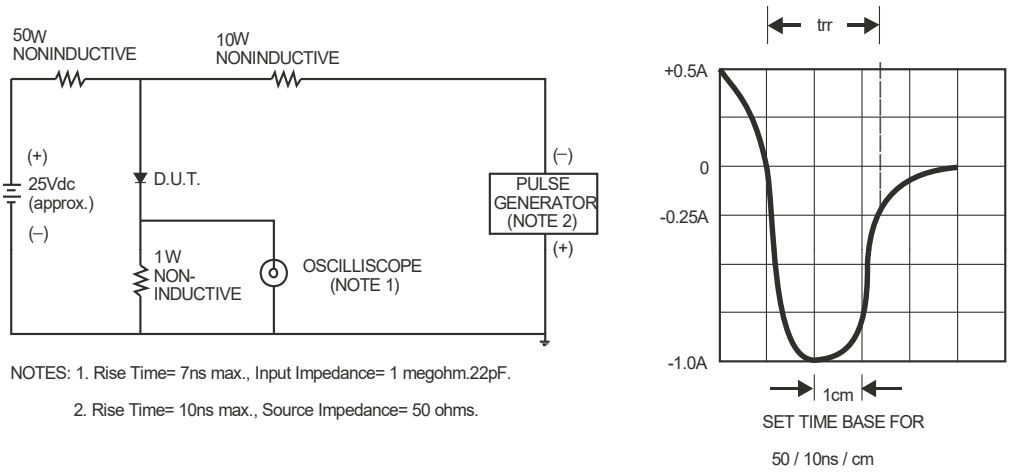


FIG. 5-Reverse Recovery Time Characteristic and Test Circuit



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.