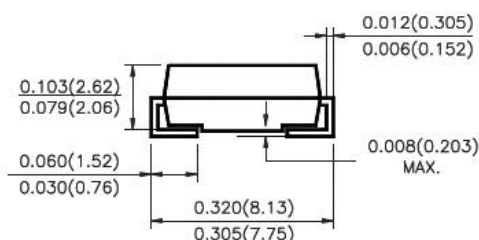
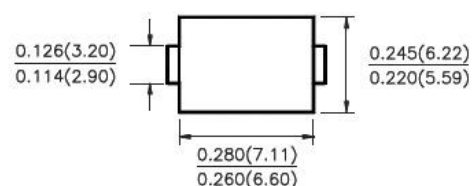


**Kingtronics**®**ES5A THRU ES5J****SURFACE MOUNT SUPER FAST RECTIFIER****REVERSE VOLTAGE 50 to 600 Volts    FORWARD CURRENT 5.0 Ampere****FEATURES**

Plastic package has underwrites laboratory  
Flammability Classification 94V-0  
For surface mounted applications  
Low profile package  
Built-in strain relief, ideal for automated placement  
Glass Passivated chip junction  
High temperature soldering :  
250°C/10 seconds at terminals

**MECHANICAL DATA**

Cases: JEDED DO-214AA molded plastic over glass passivated chip  
Terminals: Solder plated, solderable per MIL-STD-750  
Method 2026  
Polarity: Color band denotes cathode end  
Weight: 0.007ounce, 0.25 gram

**DO-214AB (SMC)****MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

**Ratings at 25°C ambient temperature unless otherwise specified ,    Dimensions in inches and (millimeters)**  
**Single phase, half wave, 60Hz, resistive or inductive load.**

**For capacitive load derate current by 20%**

	SYMBOL	ES5A	ES5B	ES5C	ES5D	ES5E	ES5G	ES5J	UNIT	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	600	VOLTS	
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	420	VOLTS	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	600	VOLTS	
Maximum Average Forward Rectified Current at $T_L=100^\circ\text{C}$	$I_{(AV)}$	5.0							Amps	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method )	$I_{FSM}$	150							Amps	
Maximum Instantaneous Forward Voltage @ 5.0A	$V_F$	0.95			1.25		1.7		Volts	
Maximum DC Reverse Current at Rated DC Blocking voltage	$I_R$	$T_A = 25^\circ\text{C}$	5.0							uA
		$T_A = 125^\circ\text{C}$	300							
Typical Reverse Recovery Time Test conditions $I_F = 0.5\text{A}$ , $I_R = 1.0\text{A}$ , $I_{RR} = 0.25\text{A}$	$t_{rr}$	35							nS	
Typical Junction Capacitance(Measured at 1.0MHz and applied reverse voltage of 4.0V)	$C_J$	45			30				pF	
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	47							°C/W	
	$R_{\theta JL}$	13								
Operating Junction Temperature Range	$T_J$	-55 to +150							°C	
Storage Temperature Range	$T_{STG}$	-55 to +150							°C	

1- Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 0.3" × 0.3" (8.0mm × 8.0mm) copper pad areas.

**Kingtronics**® International Company

## RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

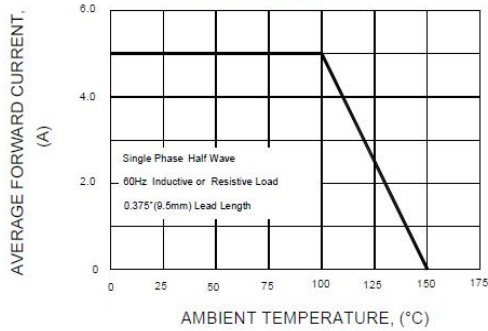


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

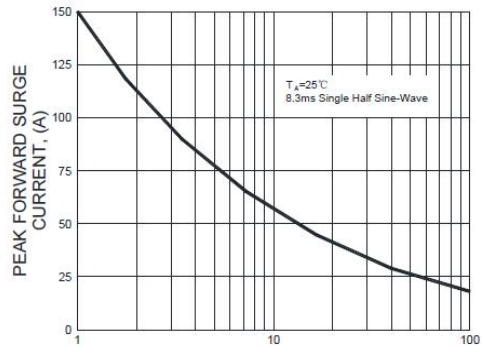


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

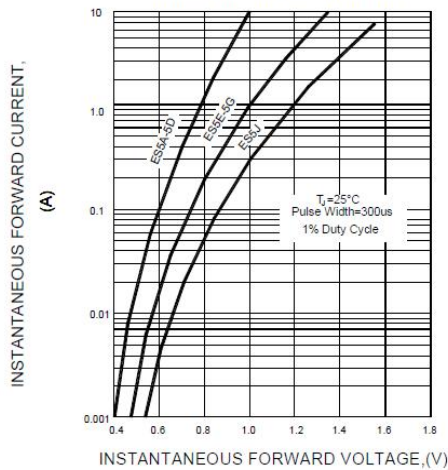


FIG.4-TYPICAL REVERSE CHARACTERISTICS

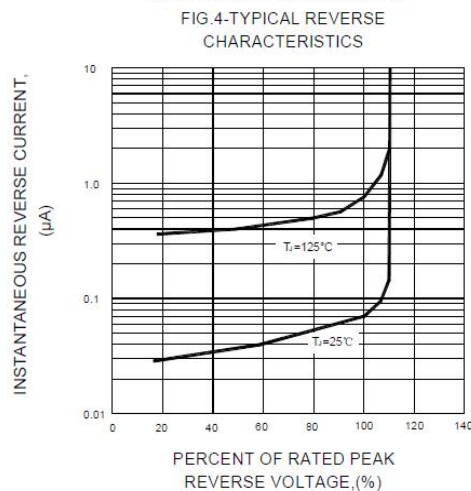


FIG.5-TYPICAL JUNCTION CAPACITANCE

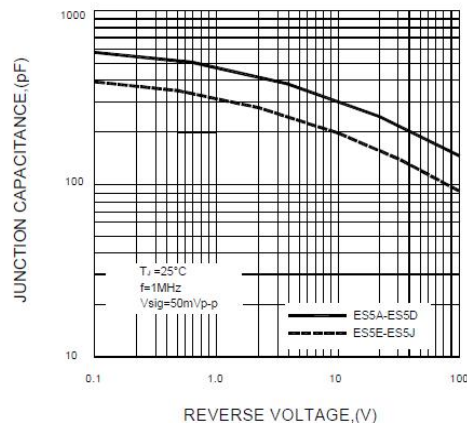
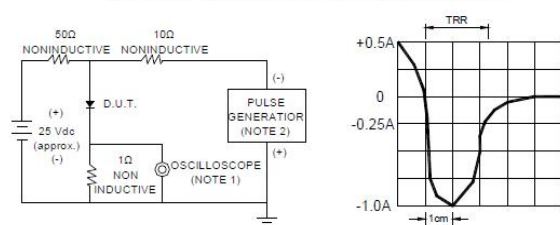


FIG.6-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES : 1. Rise Time=7ns max. Input Impedance= 1 megohm. 22pF  
 2. Rise time=10ns max. Source Impedance= 50 ohms

SET TIME BASE FOR 50/100ns/cm

Note: Specifications are subject to change without notice.