

Kingtronics®**ER1A THRU ER1J**

SURFACE MOUNT SUPER FAST RECOVERY RECTIFIER

REVERSE VOLTAGE 50 to 600 Volts FORWARD CURRENT 1.0 Ampere

FEATURES

Plastic package has underwrites laboratory flammability
 Classification 94V-0
 Glass passivated chip junction
 Built-in strain relief
 Super Fast switching speed for high efficiency
 High temperature soldering guaranteed
 250°C/10 second

MECHANICAL DATA

Case: Transfer molded plastic
 Terminals: Solder plated, Solderable per
 MIL-STD-750, Method 2026
 Polarity: Color band denotes cathode end
 Weight: 0.002ounce, 0.064 gram

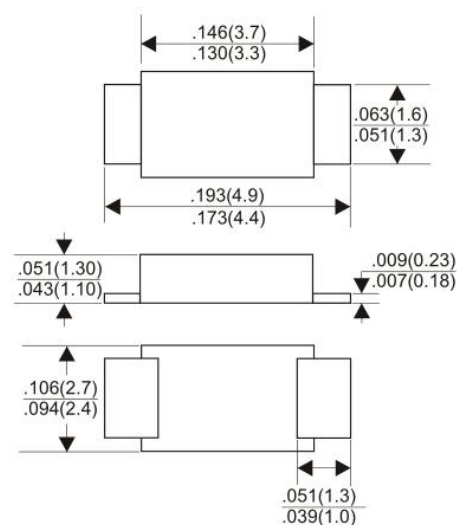
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load derate current by 20%

SMAF

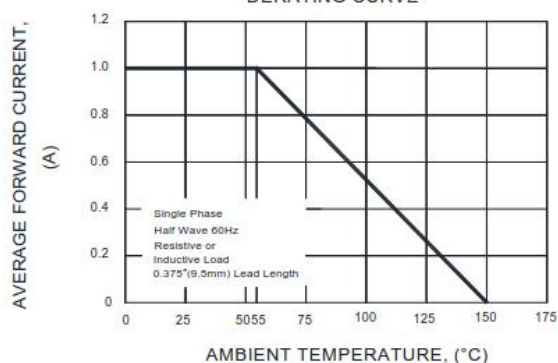
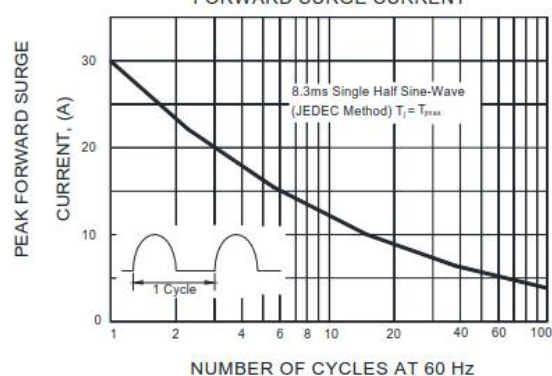
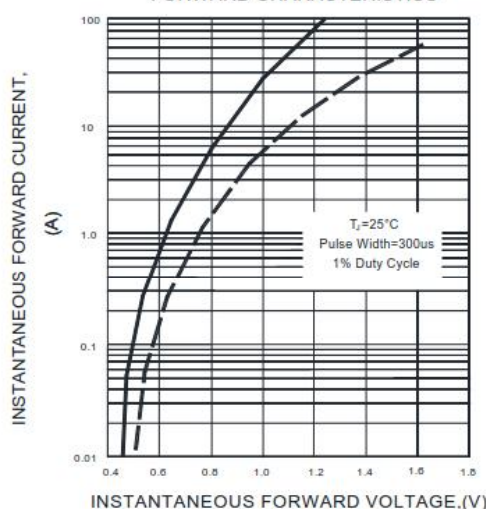
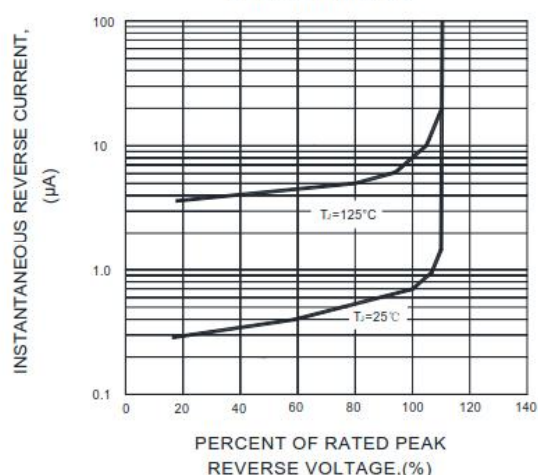
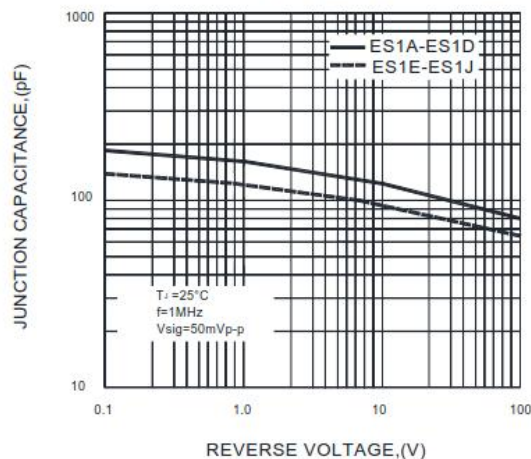
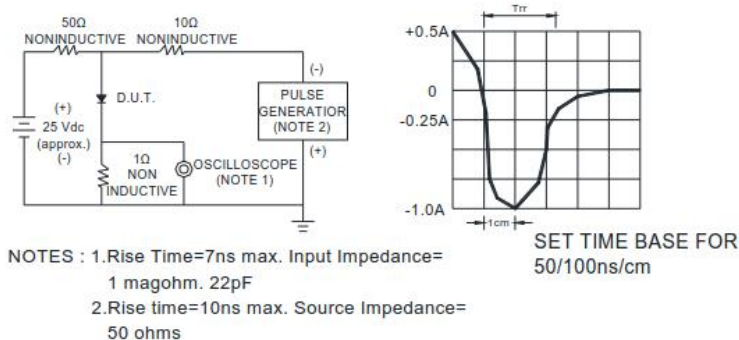


Dimensions in inches and (millimeters)

PARAMETER		SYMBOL	ER1A	ER1B	ER1C	ER1D	ER1E	ER1G	ER1J	UNIT
Maximum Repetitive 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 _A =55℃		I _(AV)	1.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I _{FSM}	30							Amps
Maximum instantaneous forward voltage per at 1.0A		V _F	0.95				1.25		1.7	VOLTS
Maximum DC Reverse Current at Rated DC blocking voltage	T _A =25℃	I _R	5.0							uA
	T _A =125℃		100							
Maximum Reverse Recovery Time Test conditions I _F =0.5A, I _R =1.0A, I _{RR} =0.25A		t _{rr}	35							nS
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)		C _J	10				8			pF
Typical Thermal Resistance (Note 1)		R _{θJA}	88							℃/W
		R _{θJL}	28							
Operating Junction Temperature		T _J	-55 to +150							℃
Storage Temperature Rang		T _{STG}	-55 to +150							℃

1- Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with $0.2 \times 0.2''$ ($5.0 \times 5.0\text{mm}$) copper pad areas.

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Kingtronics®**ER1A THRU ER1J****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**

Note: Specifications are subject to change without notice.

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