

Kingtronics®**ER2A THRU ER2J**

SURFACE MOUNT SUPER FAST RECOVERY RECTIFIER

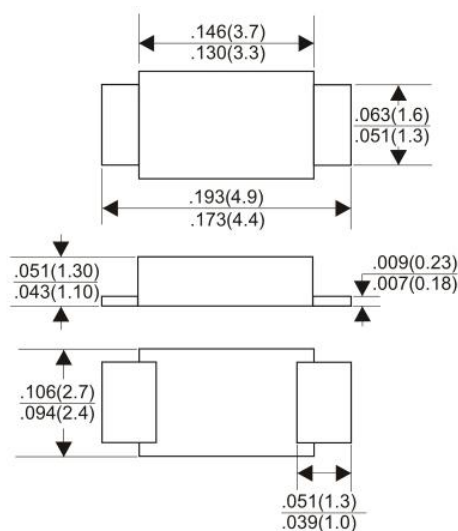
REVERSE VOLTAGE 50 to 600 Volts FORWARD CURRENT 2.0 Ampere

FEATURES

For surface mounted applications
 Low profile package
 Glass passivated chip junction
 Superfast reverse recovery time
 Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

Case: SMAF
 Terminals: Solderable per MIL-STD-750,
 Method 2026
 Approx.Weight: 27mg / 0.00095oz

SMAF

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

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

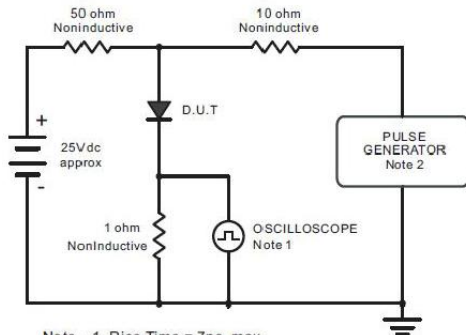
For capacitive load derate current by 20%

PARAMETER	SYMBOL	ER2A	ER2B	ER2C	ER2D	ER2E	ER2G	ER2J	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 $T_A = 125^\circ\text{C}$	$I_{(AV)}$	2.0							Amps
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	50							Amps
Maximum instantaneous forward voltage per at 2.0A	V_F	1				1.25		1.7	VOLTS
Maximum DC Reverse Current at Rated DC blocking voltage	I_R	5.0							uA
		100							
Maximum Reverse Recovery Time Test conditions $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$	t_{rr}	30							nS
Typical Junction Capacitance (Measured at 1.0MHz and applied reverse voltage of 4.0V)	C_J	30							pF
Typical Thermal Resistance	$R_{\theta JA}$	65							°C/W
	$R_{\theta JL}$	20							
Operating Junction Temperature	T_J	-55 to +150							°C
Storage Temperature Rang	T_{STG}	-55 to +150							°C

1- Thermal resistance from Junction to ambient and from junction to lead mounted on P.C.B. with 2.0 × 2.0" (5.0 × 5.0cm) copper pad areas.

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RATINGS AND CHARACTERISTIC CURVES



Note: 1. Rise Time = 7ns, max.
Input Impedance = 1megohm, 22pF.
2. Rises Time = 10ns, max.
Source Impedance = 50 ohms.

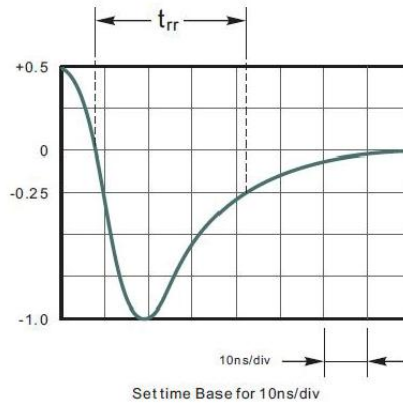


Fig.2 Maximum Average Forward Current Rating

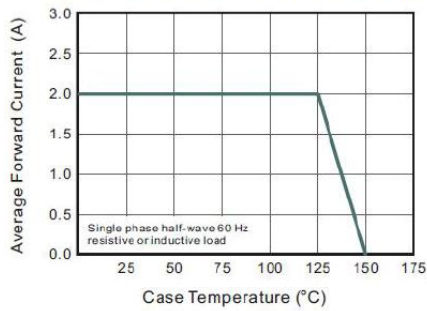


Fig.4 Typical Forward Characteristics

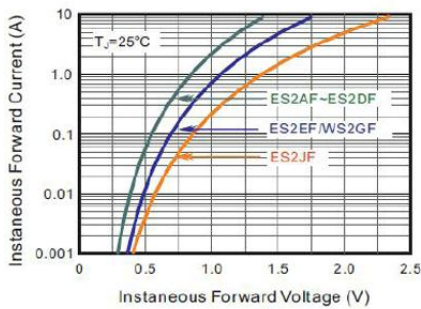


Fig.6 Maximum Non-Repetitive Peak Forward Surge Current

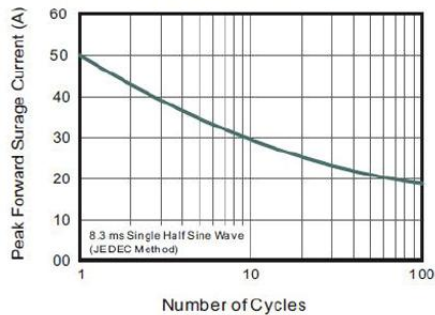


Fig.3 Typical Reverse Characteristics

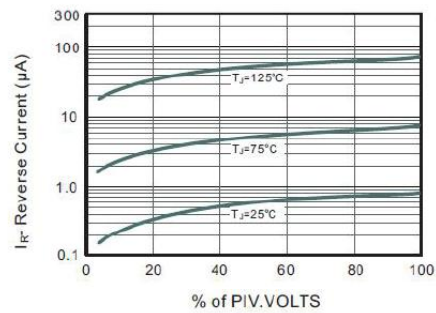
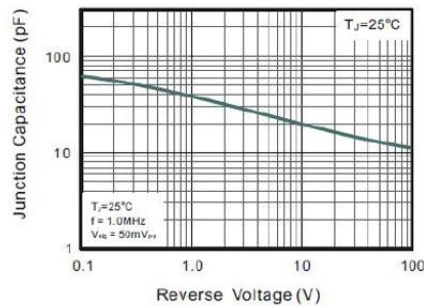


Fig.5 Typical Junction Capacitance



Note: Specifications are subject to change without notice.