

Kingtronics®

ES3A THRU ES3J

FEATURE

- ◆ Glass passivated junction chip
- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Built-in strain relief
- ◆ Ideal for automated placement, Easy pick and place
- ◆ Superfast recovery time for high efficiency
- ◆ Glass passivated chip junction
- ◆ High temperature soldering: 260°C / 10 seconds at terminals
- ◆ Plastic material used carries Underwriters Laboratory Classification 94V-O

MECHANICAL DATA

Cases: Molded plastic **Terminals:** Solder plated

Polarity: Indicated by cathode band

Packaging: 16mm tape per EIA ST D RS-481

Weight: 0.359 gram

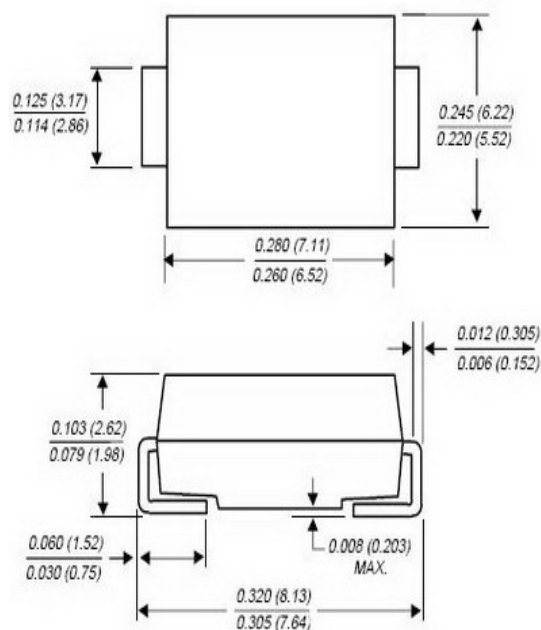
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase half wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Type Number	SYMBOLS	ES3A	ES3B	ES3C	ES3D	ES3F	ES3G	ES3H	ES3J	UNITS
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current See Fig. 1	I _(AV)	3.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) @T _L = 100°C	I _{FSM}	100								A
Maximum Instantaneous Forward Voltage @ 3.0A	V _F	0.95		1.3			1.7			V
Maximum DC Reverse Current @ TA =25°C	I _R	10				uA				
at rated DC Blocking Voltage @ TA =100°C		500				uA				
Maximum Reverse Recovery Time (Note 1)	T _{rr}	45			30				ns	
Typical Junction Capacitance (Note 2)	C _j	15.0				pF				
Typical Thermal Resistance (Note 3)	RθJA	47				°C /W				
	RθJL	12								
Operating Temperature Range	T _J	-55 to +150				°C				
Storage Temperature Range	T _{STG}	-55 to +150				°C				

SURFACE MOUNT SUPER FAST RECTIFIER

SMC



Kingtronics® International Company

Website: www.kingtronics.com

Email: info@kingtronics.com

Tel: (852) 8106 7033

Fax: (852) 8106 7099

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ES3A THRU ES3J

RATINGS AND CHARACTERISTIC CURVES (ES3A THRU ES3J)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

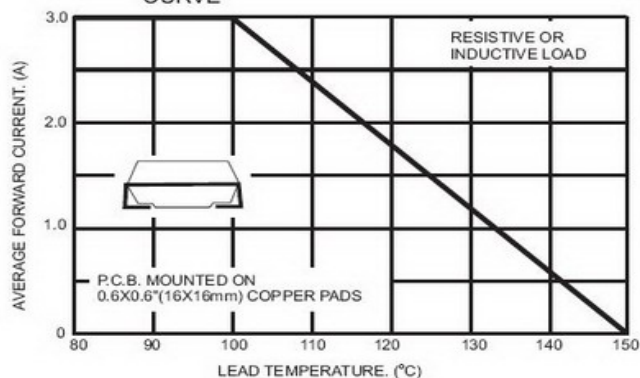


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

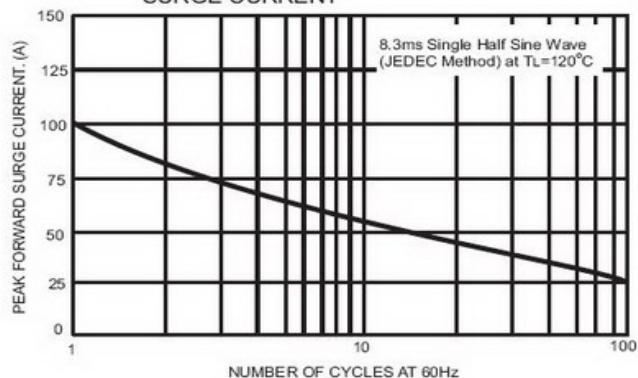


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

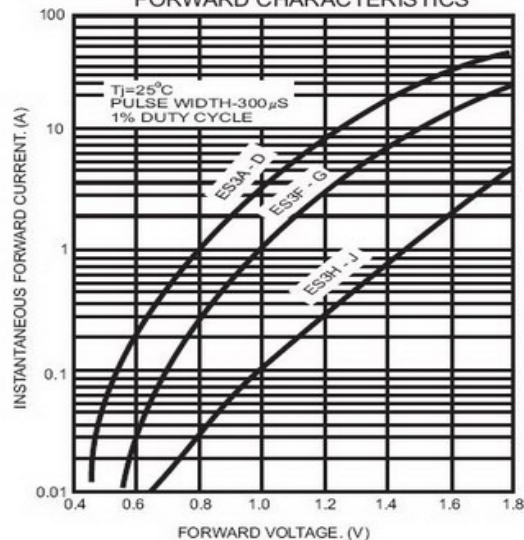


FIG.4- TYPICAL REVERSE CHARACTERISTICS

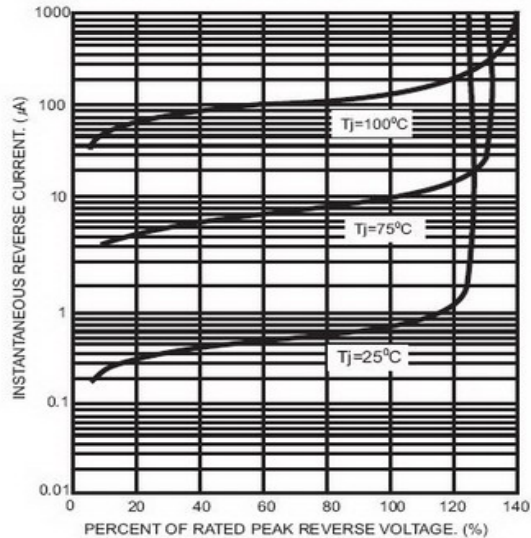
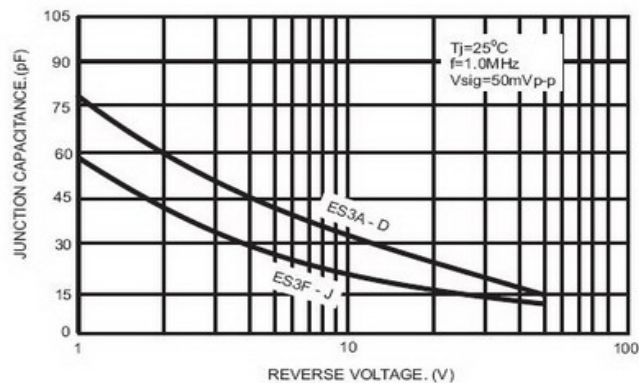


FIG.5- TYPICAL JUNCTION CAPACITANCE



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