

**SURFACE MOUNT
SUPER FAST RECTIFIERS**

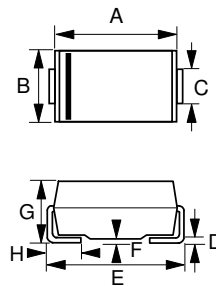
REVERSE VOLTAGE - **50 to 600** Volts
FORWARD CURRENT - **1.0** Ampere

FEATURES

- Glass passivated chip
- Super fast switching for high efficiency
- For surface mounted applications
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Qualified according to AEC-Q101 Rev_C

MECHANICAL DATA

- Case : Molded plastic
- Case Material: Molding compound, UL Flammability classification 94V-0, "Halogen-free".
- Polarity : Indicated by cathode band
- Weight : 0.002 ounces, 0.064 grams

SMA


SMA		
DIM.	MIN.	MAX.
A	4.06	4.57
B	2.29	2.92
C	1.27	1.63
D	0.15	0.31
E	4.83	5.59
F	0.05	0.20
G	2.01	2.40
H	0.76	1.52
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	ES1A	ES1B	ES1C	ES1D	ES1G	ES1J	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	400	600	V
Maximum RMS Voltage	VRMS	35	70	105	140	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	400	600	V
Maximum Average Forward Rectified Current @TL =110°C	I(AV)	1.0						A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	IFSM	30						A
Maximum forward Voltage at 1.0A DC	VF	0.92				1.25	1.30	V
Maximum DC Reverse Current @TJ =25 °C at Rated DC Blocking Voltage @TJ=125 °C	IR	5.0 200						uA
Maximum Reverse Recovery Time (Note 1)	TRR	25					35	ns
Typical Reverse Recovery Time	TRR	20					30	ns
Typical Junction Capacitance (Note 2)	CJ	20						pF
Typical Thermal Resistance (Note 3)	RθJA	90						°C/W
	RθJL	30						
	RθJC	25						
Operating Temperature Range	TJ	-55 to + 150						°C
Storage Temperature Range	TSTG	-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.

3.Thermal Resistance junction to Ambient, Lead and Case.

REV.-10, Sep-2019, KSGA01

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FIG.1 - FORWARD CURRENT DERATING CURVE

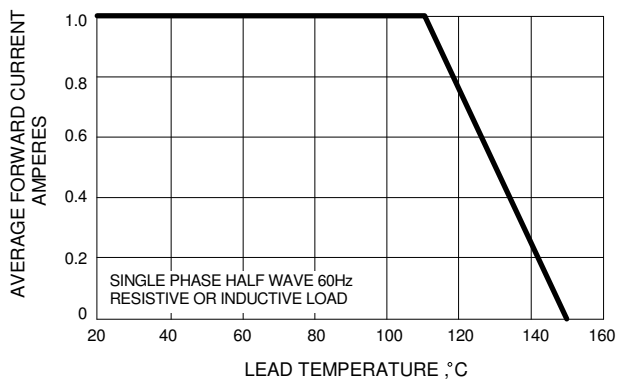


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

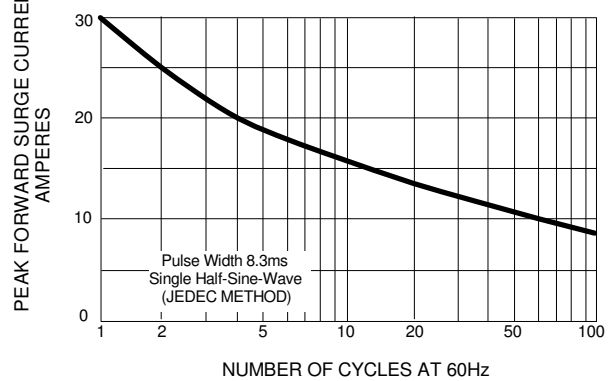


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

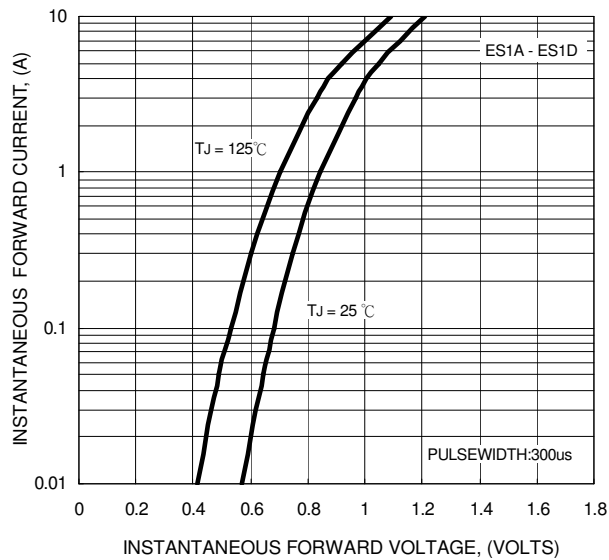


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

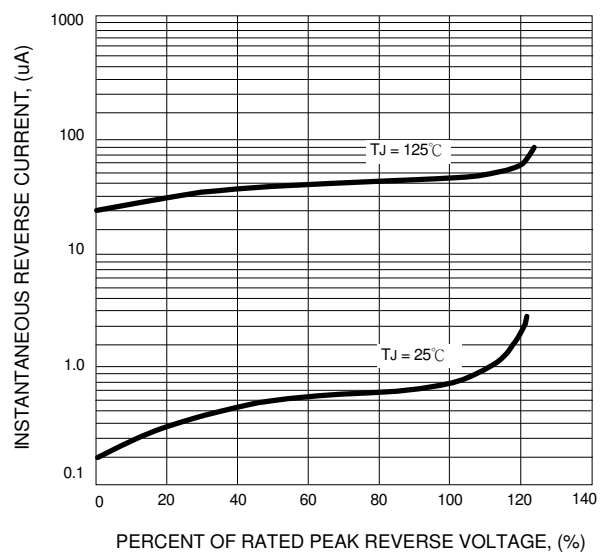


FIG.5 - TYPICAL FORWARD CHARACTERISTICS

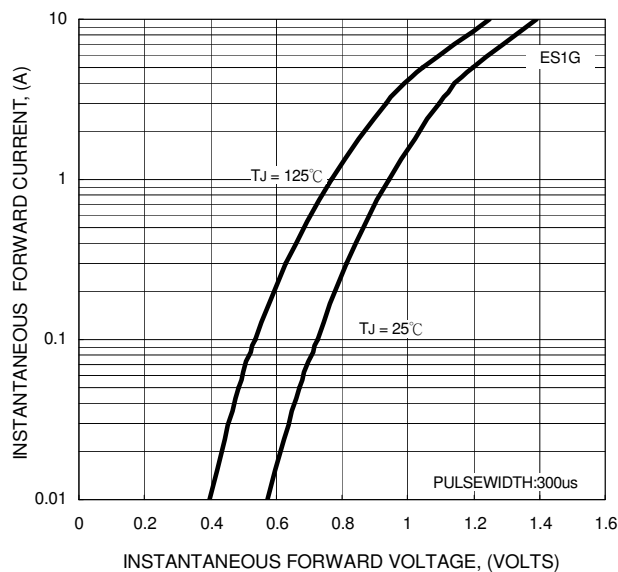
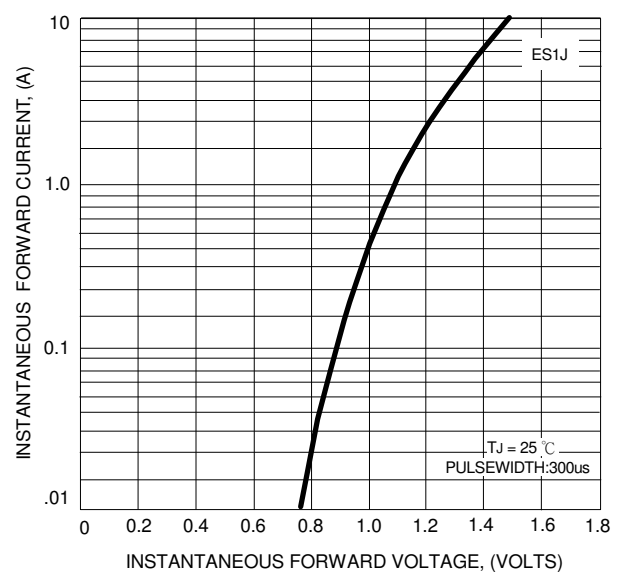


FIG.6 - TYPICAL FORWARD CHARACTERISTICS



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