LITE-ON SEMICONDUCTOR

ES2A thru ES2J

SURFACE MOUNT
SUPER FAST RECTIFIERS

REVERSE VOLTAGE - **50** to **600** Volts
FORWARD CURRENT - **2.0** Amperes

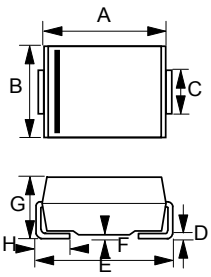
FEATURES

- 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

MECHANICAL DATA

- Case : Molded plastic
- Case Material: Molding compound, UL Flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- Polarity : Color band denotes cathode
- Weight : 0.003 ounces, 0.093 grams

SMB



SMB		
DIM.	MIN.	MAX.
A	4.06	4.57
B	3.30	3.94
C	1.96	2.21
D	0.15	0.31
E	5.21	5.59
F	0.05	0.20
G	2.01	2.50
H	0.76	1.52
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	ES2A	ES2B	ES2C	ES2D	ES2G	ES2J	UNIT
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	400	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	400	600	V
Maximum Average Forward Rectified Current @TL =110℃	$I_{(AV)}$	2.0						A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I_{FSM}	50						A
Maximum forward Voltage at 2.0A DC	V_F	0.92				1.25	1.30	V
Maximum DC Reverse Current @TJ =25℃ at Rated DC Blocking Voltage @TJ=125℃	I_R	5.0 350						uA
Maximum Reverse Recovery Time (Note 1)	T_{RR}	25					35	ns
Typical Reverse Recovery Time	T_{RR}	20					30	ns
Typical Junction Capacitance (Note 2)	C_J	25						pF
Typical Thermal Resistance (Note 3)	$R_{\theta JL}$	20					25	℃/W
Operating Temperature Range	T_J	-55 to + 150						℃
Storage Temperature Range	T_{STG}	-55 to + 150						℃

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 Lead.

REV. 6, Aug-2014, KSGB01

RATING AND CHARACTERISTIC CURVES
ES2A thru ES2J

FIG.1 - FORWARD CURRENT DERATING CURVE

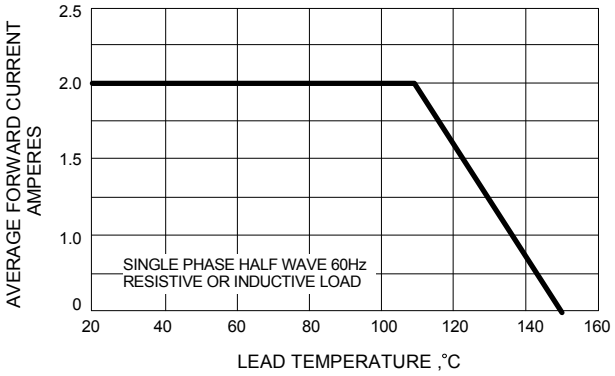


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

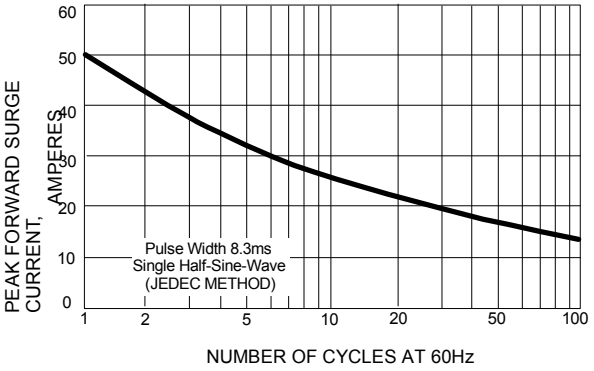


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

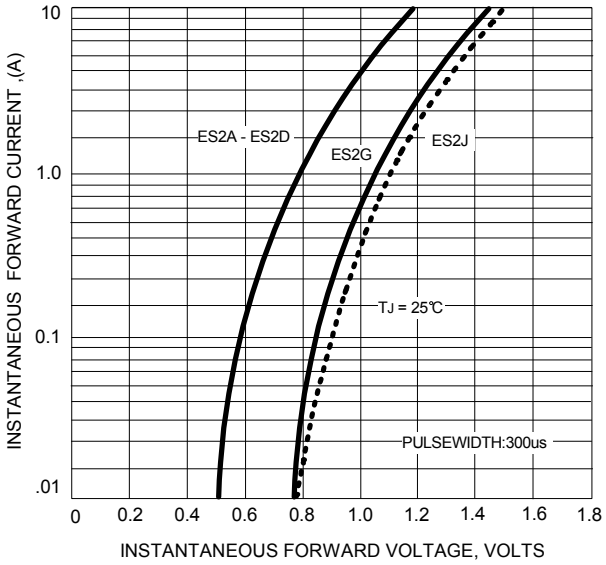
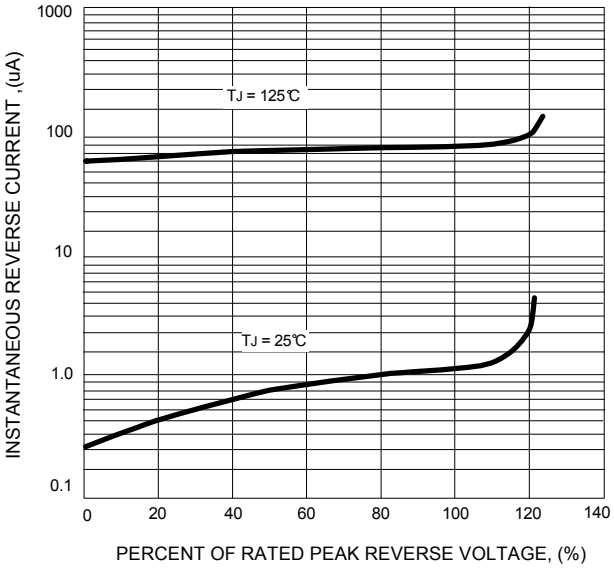


FIG.4 - TYPICAL REVERSE CHARACTERISTICS



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