CURRENT 8.0 Ampere
VOLTAGE RANG 200 to 600 Volts

ES8DC THRU ES8JC

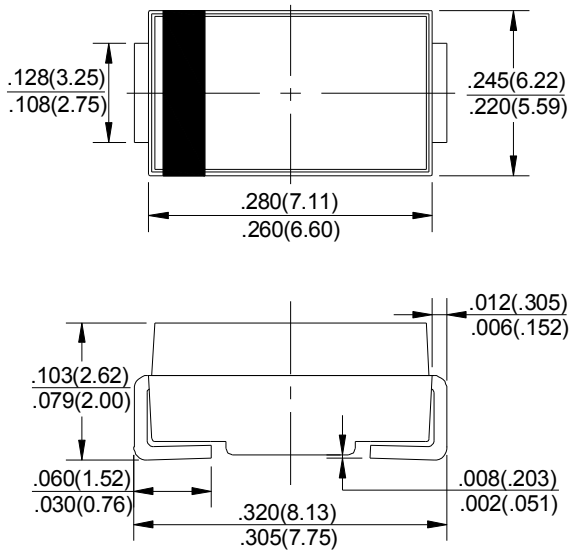
Features

- ✧ Special for Automotive LED/HID lamp
- ✧ For surface mounted application
- ✧ 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-0

Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Terminals: Pure tin plated, lead free.
- ✧ Polarity: Indicated by cathode band
- ✧ Packing: 12mm tape per EIA STD RS-481
- ✧ Weight: 0.21 gram

DO-214AB/SMC



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25℃ ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%

Type Number	Symbol	ES8D	ES8G	ES8J	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	200	400	600	V
Maximum RMS Voltage	V_{RMS}	140	280	420	V
Maximum DC Blocking Voltage	V_{DC}	200	400	600	V
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	8.0			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	125			A
Maximum Instantaneous Forward Voltage @ 8.0A	V_F	0.98	1.3	1.7	V
Maximum DC Reverse Current @T_A =25°C at Rated DC Blocking Voltage @ T_A=100°C	I_R	10 350			uA uA
Maximum Reverse Recovery Time (Note 1)	Trr	35			nS
Typical Junction Capacitance (Note 2)	Cj	45	30		pF
Maximum Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	75 20			℃/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 MHz and Applied V_R=4.0 Volts
3. Units Mounted on P.C.B. 0.4” x 0.4” (10mm x 10mm) Pad Areas

CURRENT 8.0 Ampere
VOLTAGE RANG 200 to 600 Volts

ES8DC THRU ES8JC

RATING AND CHRACTERISTIC CURVES ES8D Thru ES8J

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

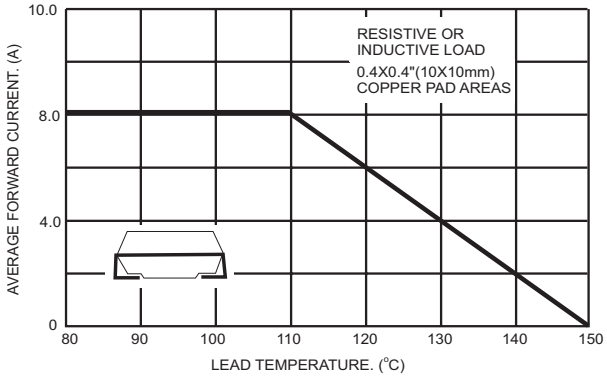


FIG.2- TYPICAL REVERSE CHARACTERISTICS

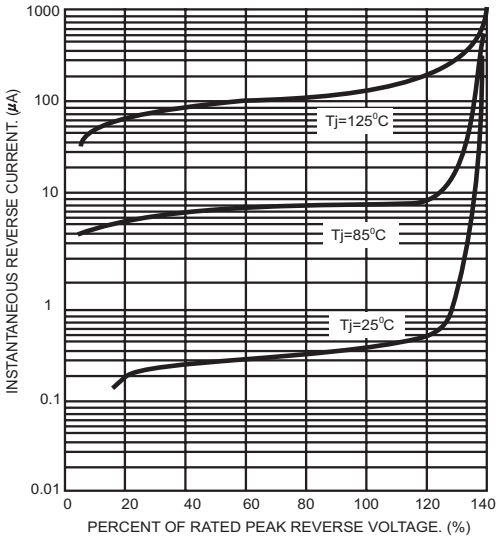


FIG.3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

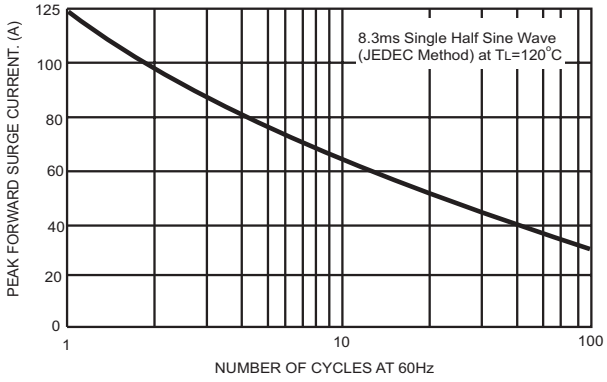


FIG.4- TYPICAL JUNCTION CAPACITANCE

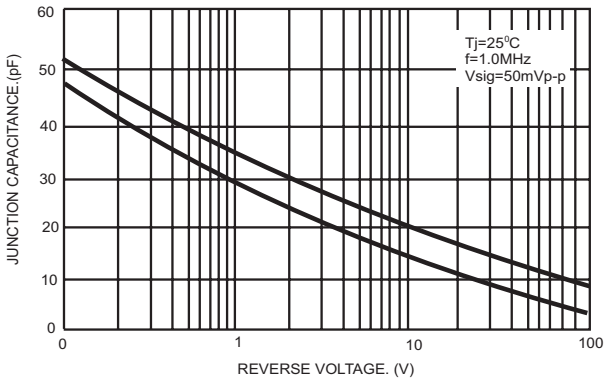


FIG.5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

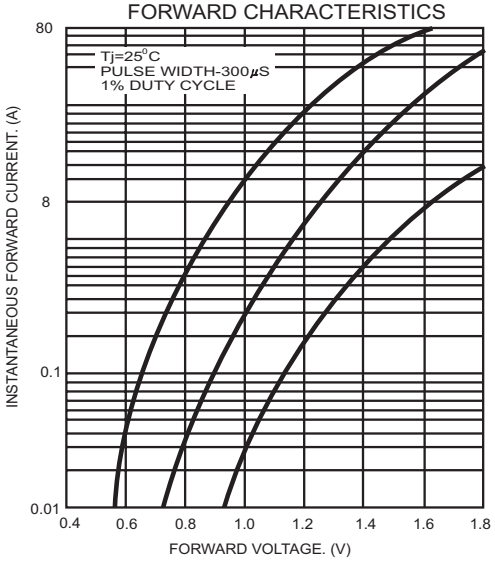
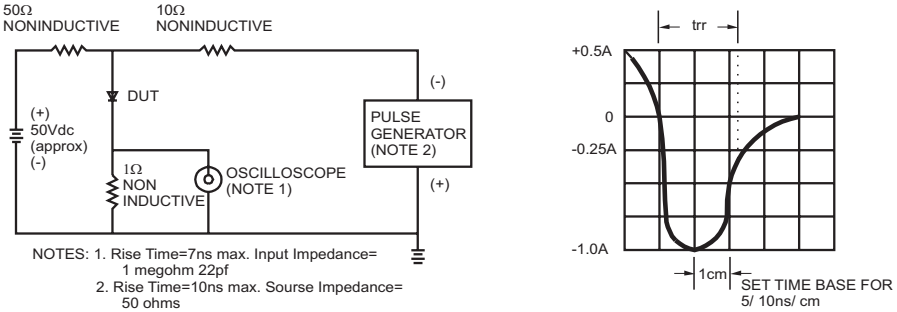


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf
2. Rise Time=10ns max. Sourse Impedance= 50 ohms