



ES3AC THRU ES3JC

3.0 AMP SURFACE MOUNT SUPER FAST RECTIFIERS



FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Super fast recovery time for high speed switching

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.21 grams

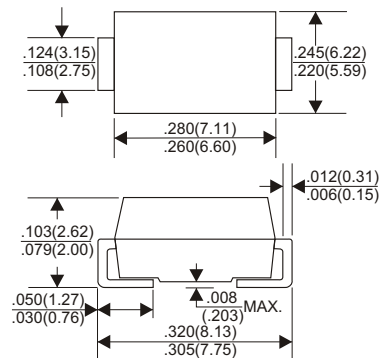
VOLTAGE RANGE

50 to 600 Volts

CURRENT

3.0 Ampere

DO-214AB(SMC)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

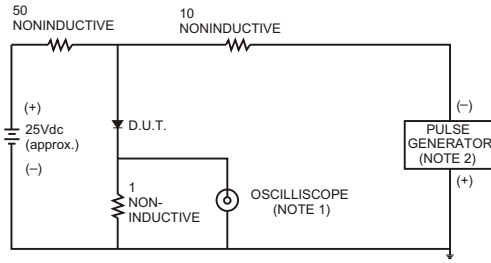
TYPE NUMBER	ES3AC	ES3BC	ES3CC	ES3DC	ES3GC	ES3JC	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	400	600	V
Maximum RMS Voltage	35	70	105	140	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	400	600	V
Maximum Average Forward Rectified Current at T _L =100°C	3.0						A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	100						A
Maximum Instantaneous Forward Voltage at 3.0A	0.95				1.25	1.70	V
Maximum DC Reverse Current Ta=25°C	10						μA
at Rated DC Blocking Voltage Ta=100°C	500						μA
Maximum Reverse Recovery Time (Note 1)	35						nS
Typical Junction Capacitance (Note 2)	45						pF
Operating and Storage Temperature Range T _J , T _{STG}	-55 — +150						°C

NOTES:

1. Reverse Recovery Time test condition: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (ES3AC THRU ES3JC)

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



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

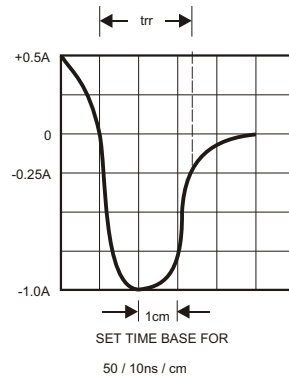


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

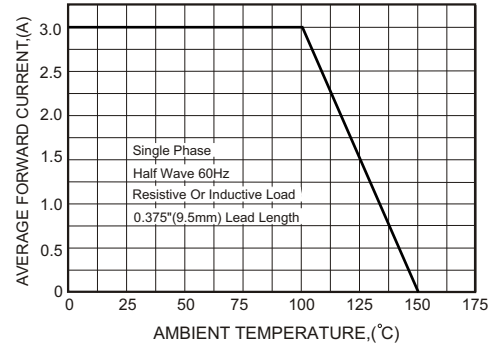


FIG.3-TYPICAL FORWARD CHARACTERISTICS

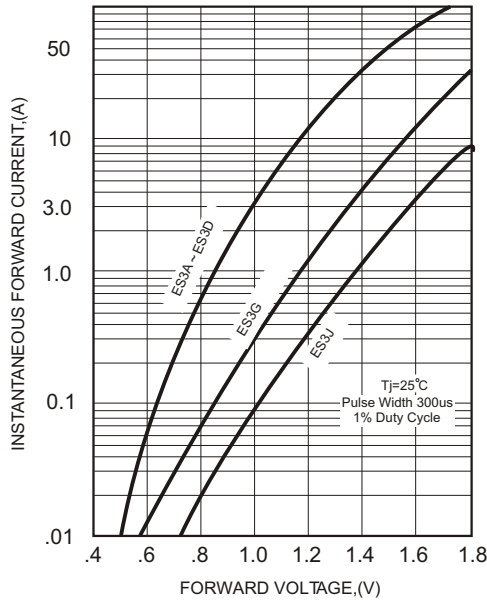


FIG.4-TYPICAL REVERSE CHARACTERISTICS

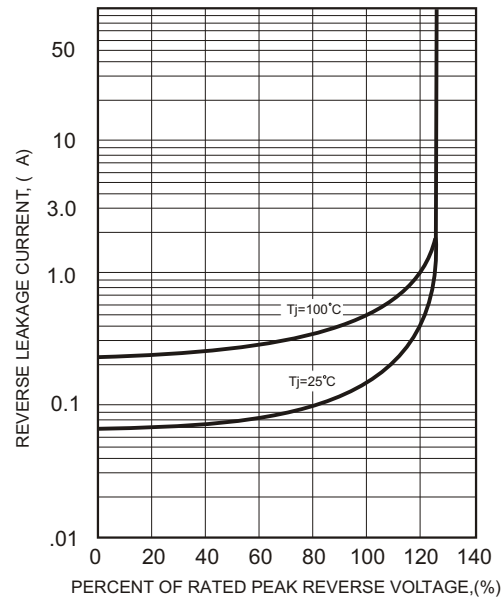


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

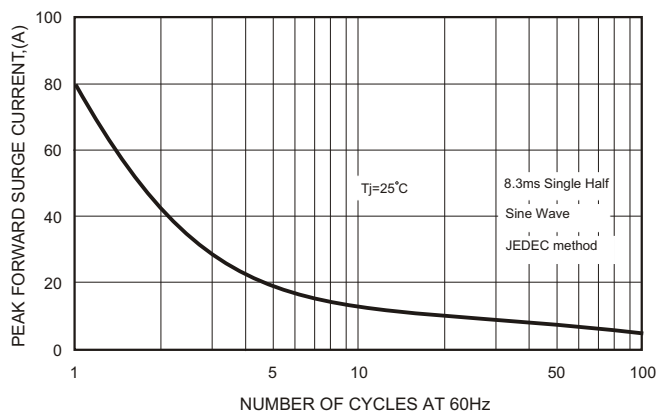
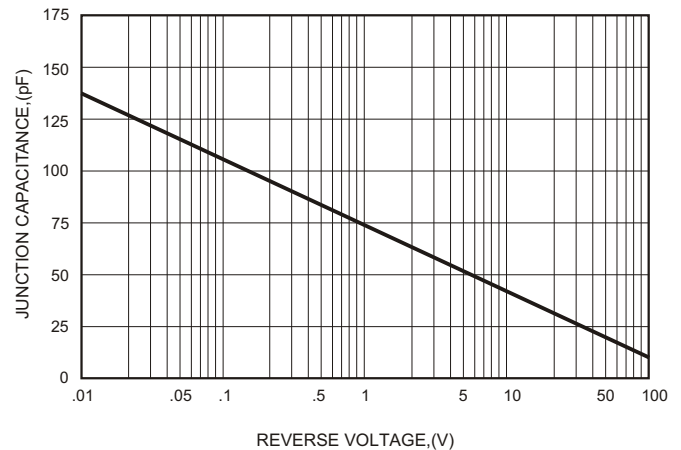


FIG.6-TYPICAL JUNCTION CAPACITANCE



Attention:

The graph is for reference only, can't be the basis for judgment.

Any and all information described or contained herein are subject to change without notice due to product/technology improvement.