

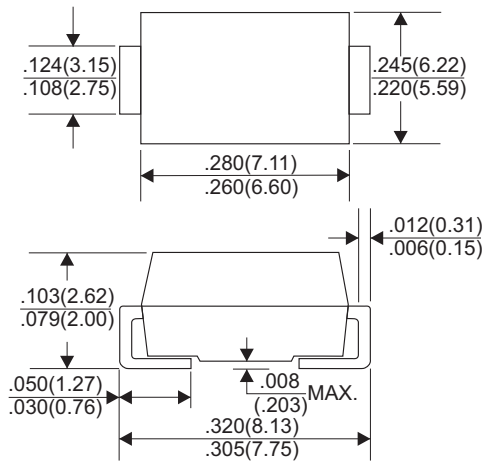


ES3AC THRU ES3JC

SURFACE MOUNT SUPER FAST RECOVERY RECTIFIERS

Reverse Voltage - 50 to 600 Volts Forward Current - 3.0 Ampere

DO-214AB(SMC)



Dimensions in inches and (millimeters)

FEATURES

- * Glass passivate device
- * Ideal for surface mounted applications
- * Low reverse leakage
- * Metallurgically bonded construction
- * High temperature soldering guaranteed:
250°C/10 seconds 0.375"(9.5mm) lead length,
5 lbs.(2.3kg) tension

MECHANICAL DATA

- * Case: JEDEC SMC molded plastic
- * Terminals: Plated axial leads, solderable per
MIL-STD-750, Method 2026
- * Polarity: Color band denotes cathode end
- * Mounting Position: Any

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	ES3EC	ES3GC	ES3JC	UNITS
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current .375"(9.5mm) Lead Length at Ta=55°C	3.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	125							A
Maximum Instantaneous Forward Voltage at 3.0A	0.95				1.3		1.7	V
Maximum DC Reverse Current Ta=25°C	5.0							μA
at Rated DC Blocking Voltage Ta=100°C	50							μA
Maximum Reverse Recovery Time (Note 1)	35							nS
Typical Junction Capacitance (Note 2)	15							pF
Operating and Storage Temperature Range Tj, Tstg	-65 — +150							°C
Marking code	ES3A	ES3B	ES3C	ES3D	ES3E	ES3G	ES3J	

NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

RATING AND CHARACTERISTIC CURVES (ES3AC THRU ES3JC)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

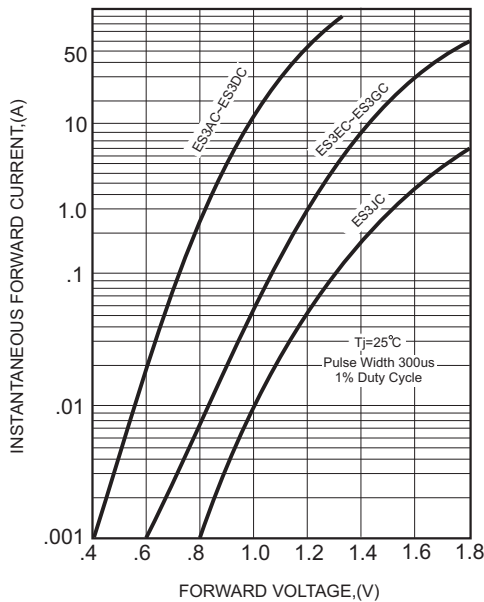


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

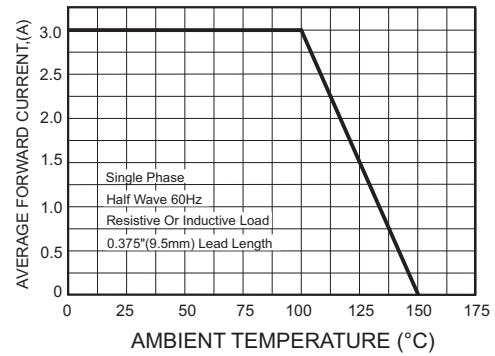


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

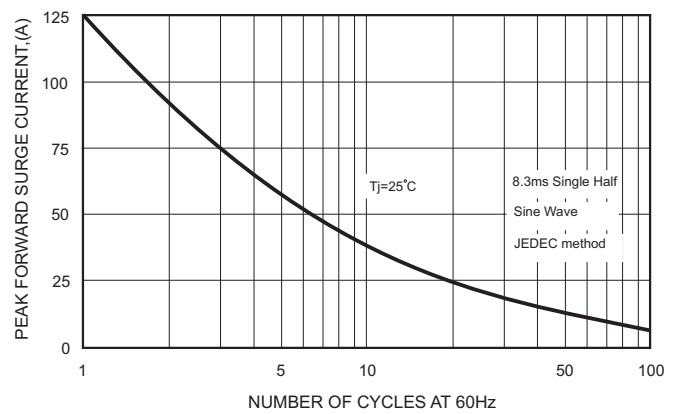
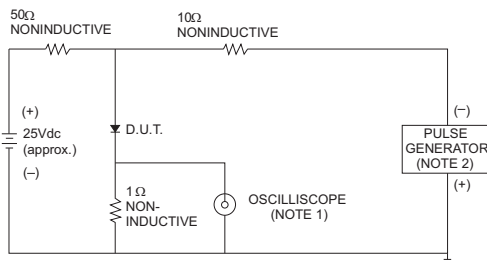


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

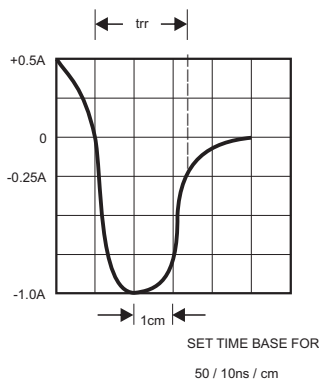


FIG.5-TYPICAL JUNCTION CAPACITANCE

