

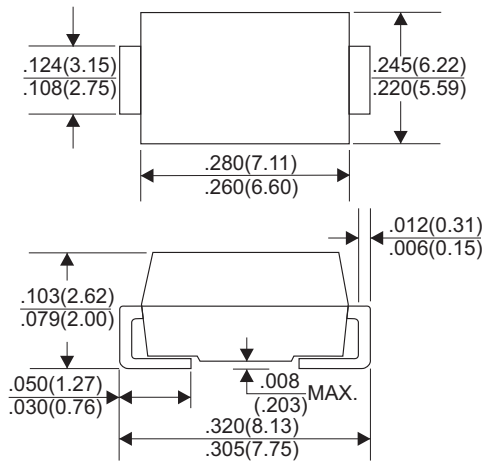


ES5AC THRU ES5JC

SURFACE MOUNT SUPER FAST RECOVERY RECTIFIERS

Reverse Voltage - 50 to 600 Volts Forward Current - 5.0 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	ES5AC	ES5BC	ES5CC	ES5DC	ES5EC	ES5GC	ES5JC	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)								150	A
Maximum Instantaneous Forward Voltage at 5.0A	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 T _J , T _{STG}								-65 — +150	°C
Marking code	ES5A	ES5B	ES5C	ES5D	ES5E	ES5G	ES5J		

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 (ES5AC THRU ES5JC)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

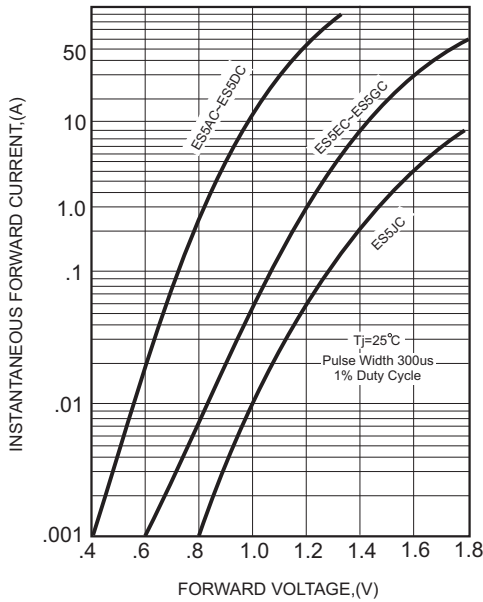


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

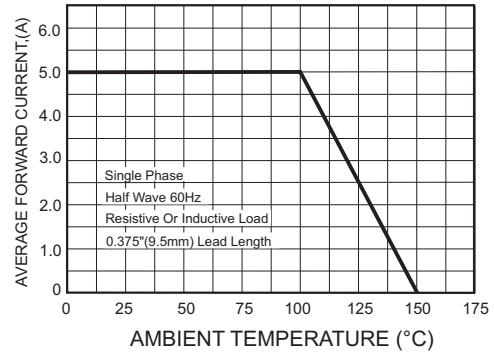


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

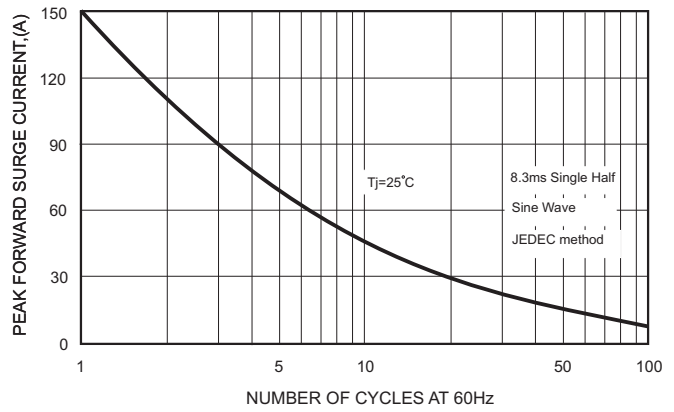
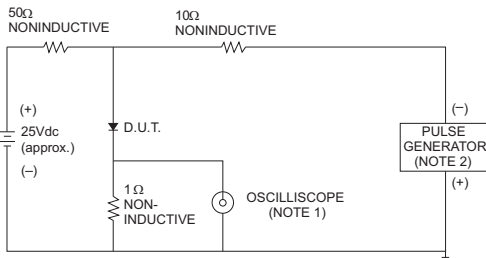


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

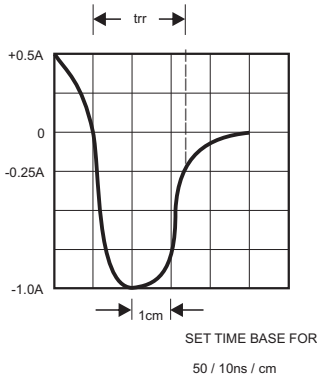


FIG.5-TYPICAL JUNCTION CAPACITANCE

