

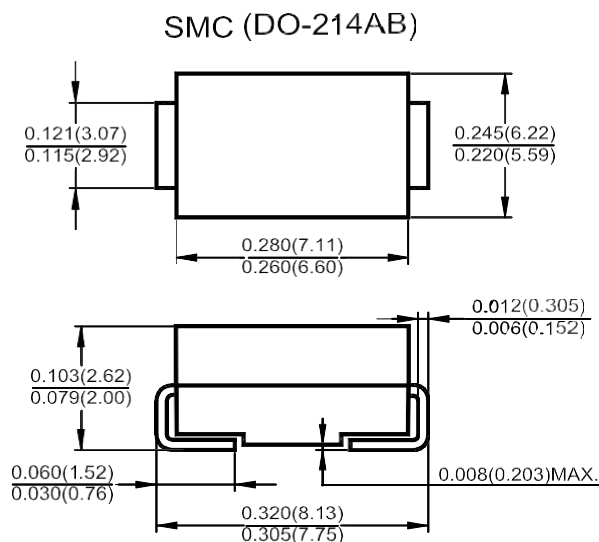
5.0 AMP SUPER FAST RECTIFIERS

Features:

- High current capability
- High surge current capability
- High reliability
- Low reverse current
- Low forward voltage drop
- Super fast recovery time

Mechanical Data:

- Case: DO-214AB (SMC) molded plastic body
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Lead formed for surface mount
- Mounting Position: Any



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

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

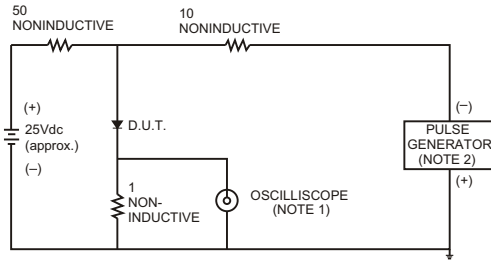
Parameter	Symbols	ES5A	ES5B	ES5C	ES5D	ES5F	ES5G	ES5J	ES5K	ES5M	Units	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	600	800	1000	V	
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	420	560	700	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	600	800	1000	V	
Maximum Average Forward Current	$I_{F(AV)}$	5									A	
Peak Peak Forward Surge Current, 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	150									A	
Maximum Forward Voltage at $I_F = 5$ A	V_F	0.95			1.3			1.65			V	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	$T_A = 25^\circ\text{C}$					$T_A = 100^\circ\text{C}$					μA
Maximum Reverse Recovery Time ¹⁾	t_{rr}	35									ns	
Typical Junction Capacitance ²⁾	C_J	50					40					pF
Junction Temperature Range	T_j	- 55 to + 150									$^\circ\text{C}$	
Storage temperature range	T_s	- 55 to + 150									$^\circ\text{C}$	

¹⁾ Reverse recovery test conditions: $I_F = 0.5$ A, $I_R = 1$ A, $I_{rr} = 0.25$ A

²⁾ Measured at 1 MHz and applied reverse voltage of 4 V D.C.

RATING AND CHARACTERISTIC CURVES (ES5A THRU ES5M)

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 Imp

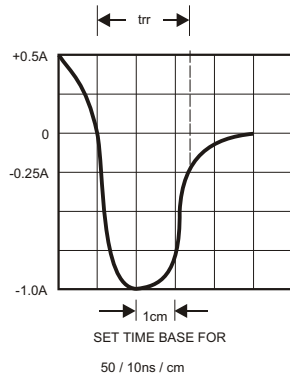


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

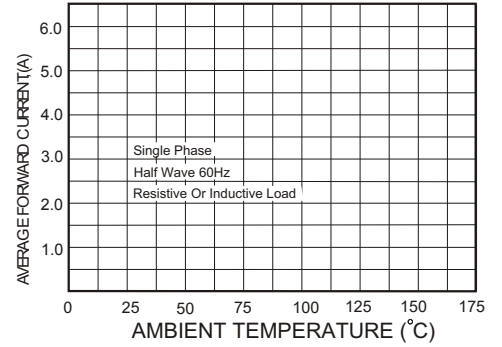


FIG.3-TYPICAL FORWARD CHARACTERISTICS

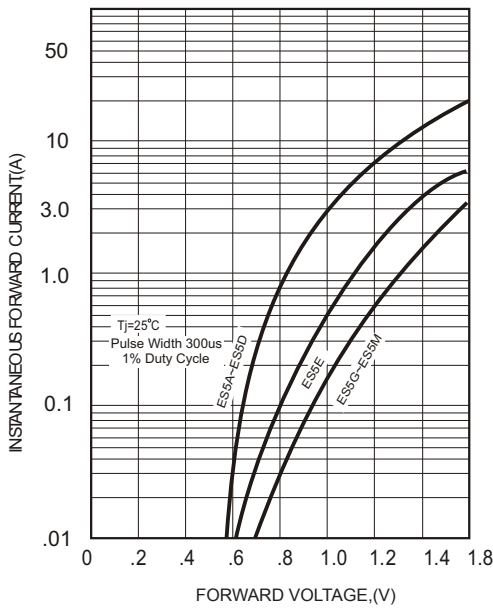


FIG.4-TYPICAL REVERSE CHARACTERISTICS

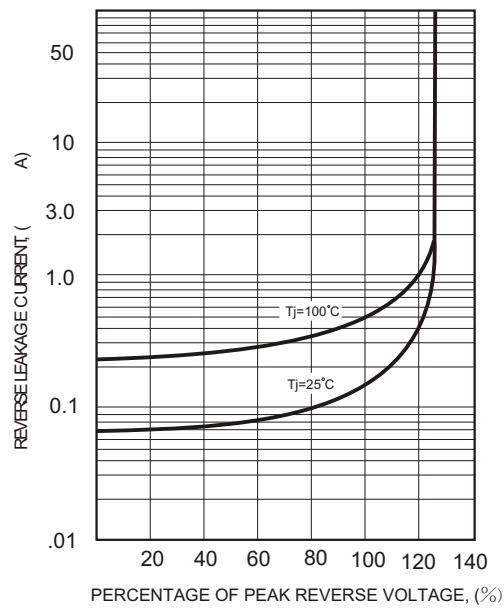


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

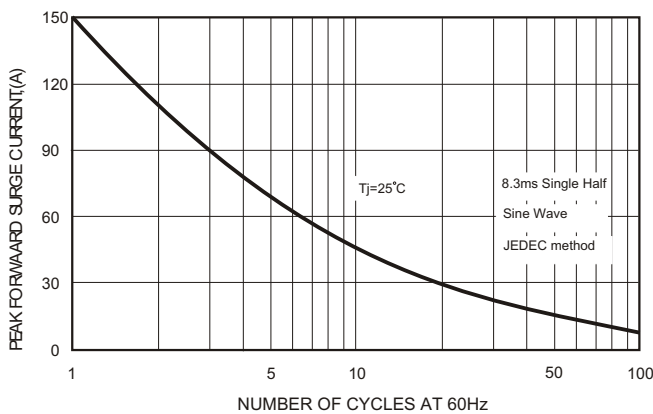


FIG.6-TYPICAL JUNCTION CAPACITANCE

