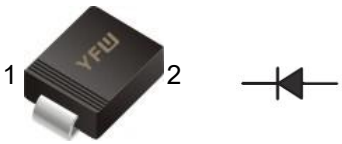
Super Fast Recovery Surface Mounted Rectifiers

Reverse Voltage - 800 V

Forward Current - 5 A

Pinning

1.Cathode	2.Anode



DO-214AB/SMC

Marking Code	
ES5KC	YFW ES5K

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 260 °C/10 seconds at terminals

MECHANICAL DATA

- Case: DO-214AB/SMC
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.22g / 0.0077oz

Absolute Maximum Ratings and characteristics

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

Parameter	Symbols	ES5KC	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	800	V
Maximum RMS voltage	V_{RMS}	560	V
Maximum DC Blocking Voltage	V_{DC}	800	V
Maximum Average Forward Rectified Current at T_L = 100 °C	$I_{F(AV)}$	5.0	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	150	A
Maximum Instantaneous Forward Voltage at 5 A	V_F	2.0	V
Maximum DC Reverse Current T_a = 25 °C at Rated DC Blocking Voltage T_a=125 °C	I_R	5.0 500	μA
Maximum Reverse Recovery Time (Note1)	Trr	35	nS
Typical Junction Capacitance (Note2)	C_j	72.0	pF
Typical Thermal Resistance	$R_{\theta JA}$	47.0	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

1.Reverse recovery time test condition: I_F=0.5A I_R=1.0A Irr=0.25A

2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

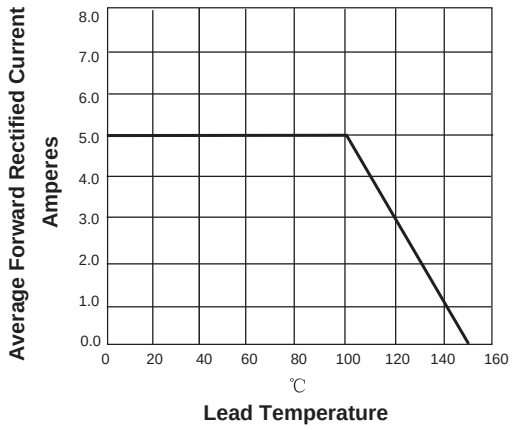


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

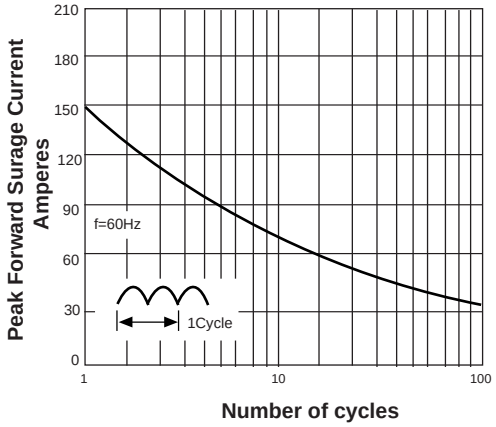


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

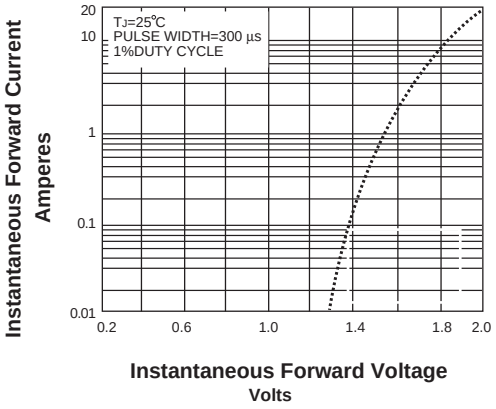
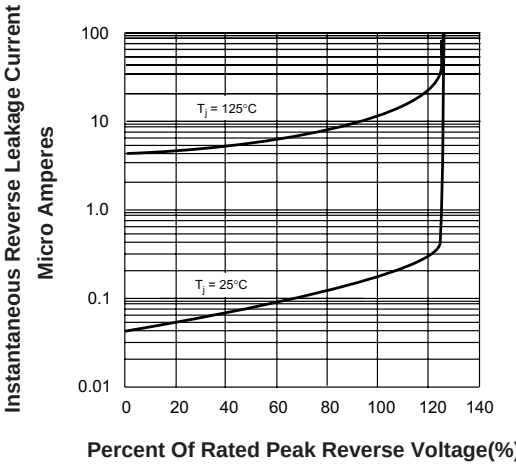
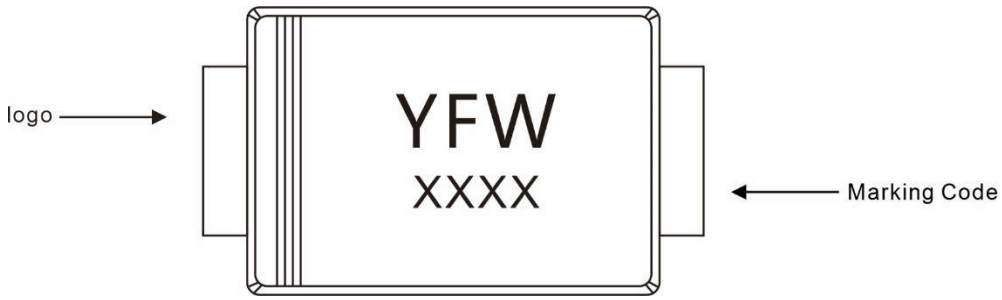


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram

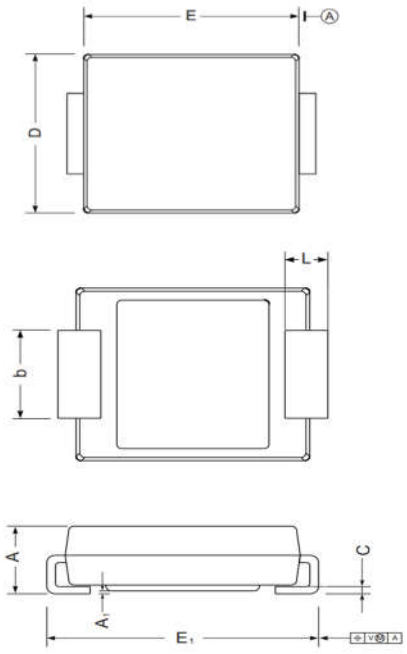


Ordering information

Package	Packing Description	Packing Quantity
DO-214AB SMC	Tape/Reel,13"reel	3000PCS/Reel 30000PCS/Carton

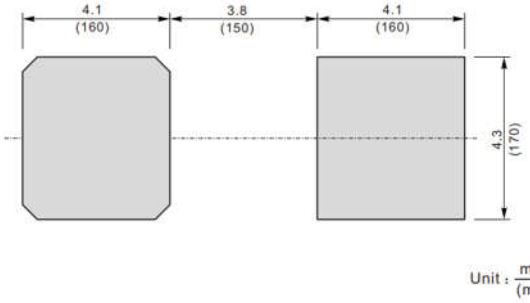
Package Dimensions

DO-214AB SMC



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	2.00	2.62	79	103
E	6.5	7.0	256	276
D	5.6	6.2	220	244
E_1	7.6	8.0	299	315
A1	0.05	0.21	2.0	8.3
C	0.15	0.31	5.9	12
L	0.9	1.6	35	63
b	2.75	3.25	108	128

The recommended mounting pad size



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