

Surface Mounted Supper Fast Rectifiers

Reverse Voltage - 800 to 1000 V

Forward Current - 1 A

FEATURES

- Low reverse leakage
- High forward surge capability
- High reliability
- High temperature soldering guaranteed: 260 °C/10seconds
- Lead and body according with RoHS standard
- Green compound with suffix "-F" on Marking

MECHANICAL DATA

- Case: DO-214AC Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Pure tin plated, lead free

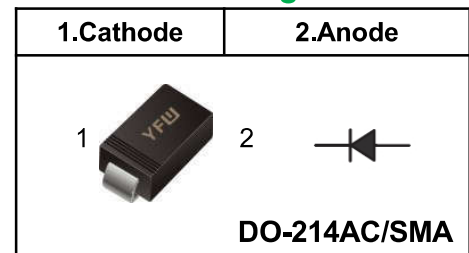
Maximum Ratings & Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbols	ES1K	ES1M	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	800	1000	V
Maximum RMS voltage	V_{RMS}	560	700	V
Maximum DC Blocking Voltage	V_{DC}	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 125\text{ °C}$	$I_{F(AV)}$	1.0		A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	25		A
Maximum Instantaneous Forward Voltage at 1 A	V_F	3.20		V
Maximum DC Reverse Current $T_a = 25\text{ °C}$ at Rated DC Blocking Voltage $T_a = 125\text{ °C}$	I_R	5	100	μA
Typical Junction Capacitance at $V_R = 4V, f = 1MHz$	C_j	15		pF
Maximum Reverse Recovery Time	T_{rr}	35		nS
Typical Thermal Resistance (Note 1)	$R_{\theta JA}$	105		°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150		°C

1) Thermal resistance from junction to ambient, PCB mounted.

Pinning

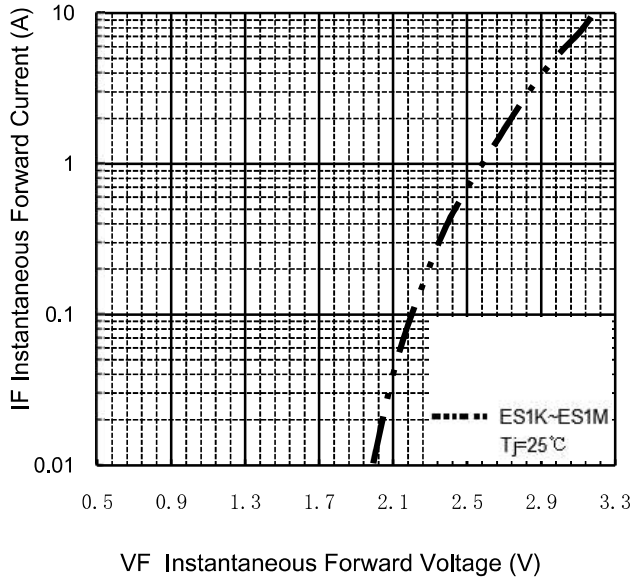


Marking Code

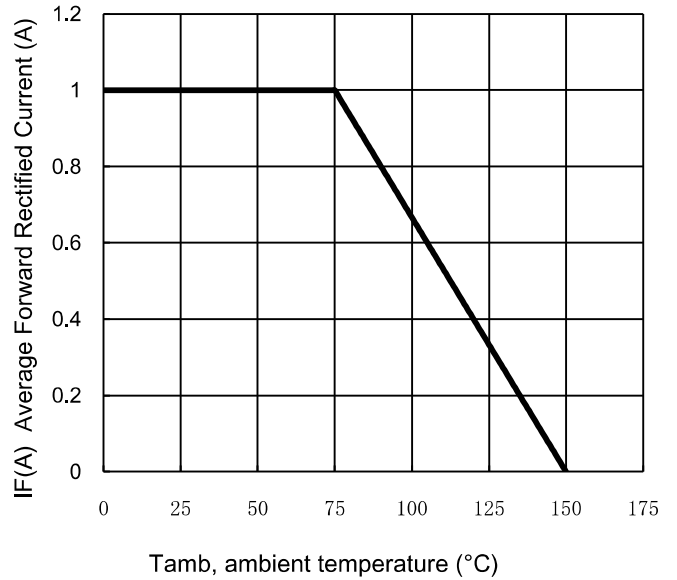
ES1K	ES1K
ES1M	ES1M

Characteristic Curves

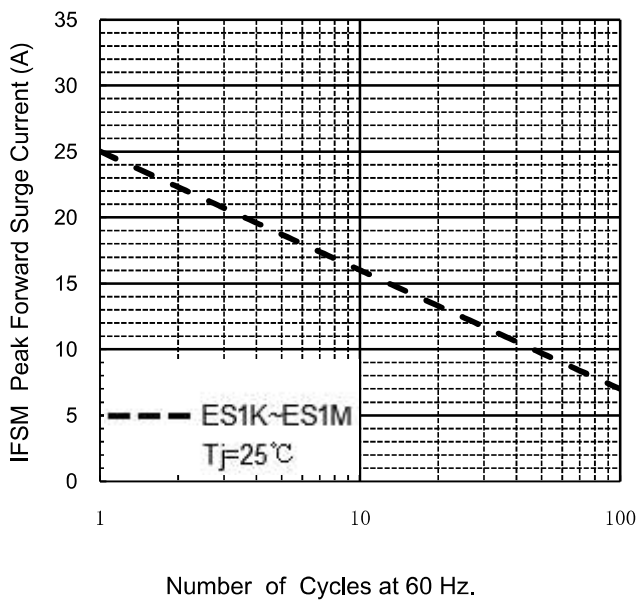
TYPICAL FORWARD CHARACTERISTIC



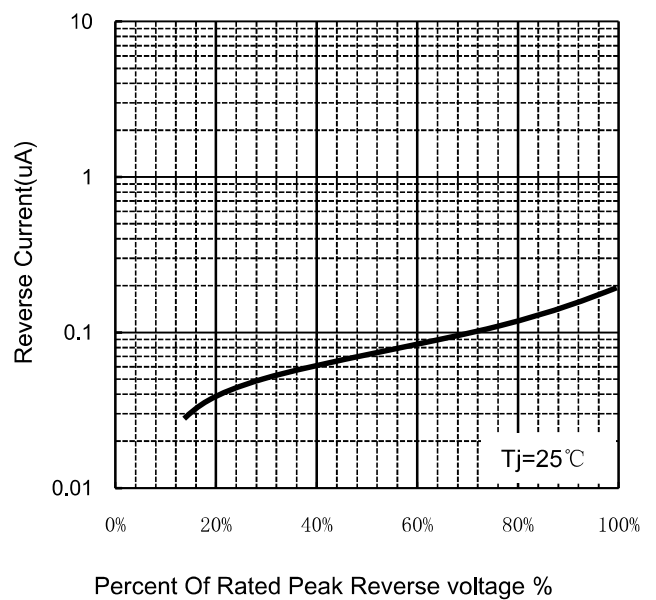
FORWARD CURRENT DERATING CURVE



MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT

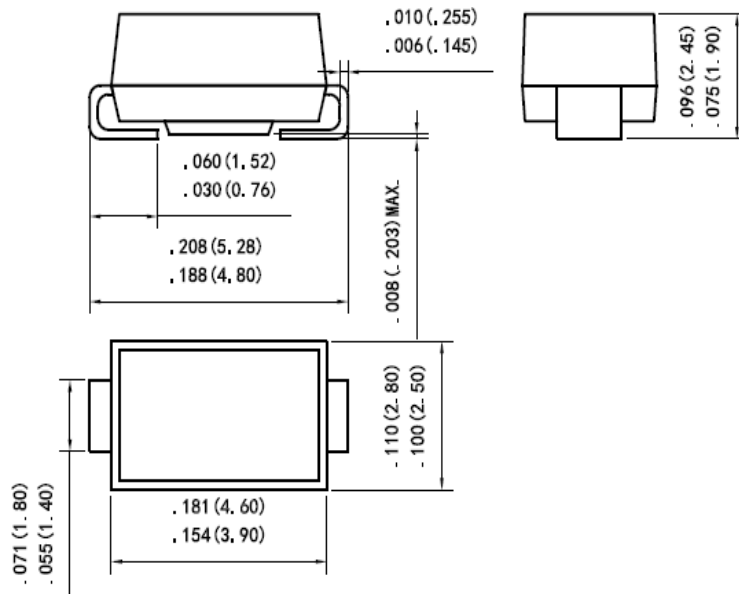


TYPICAL REVERSE CHARACTERISTICS



Package Outline

DO-214AC SMA



Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
DO-214AC SMA	Tape/Reel, 11" reel	5000	EIA-481-1
	Tape/Reel, 7" reel	2000	EIA-481-1