

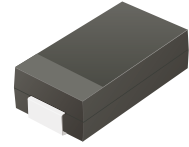
## ES8AC-HF Thru. ES8JC-HF

Reverse Voltage: 50 to 600 Volts

Forward Current: 8 Amp

RoHS Device

Halogen Free



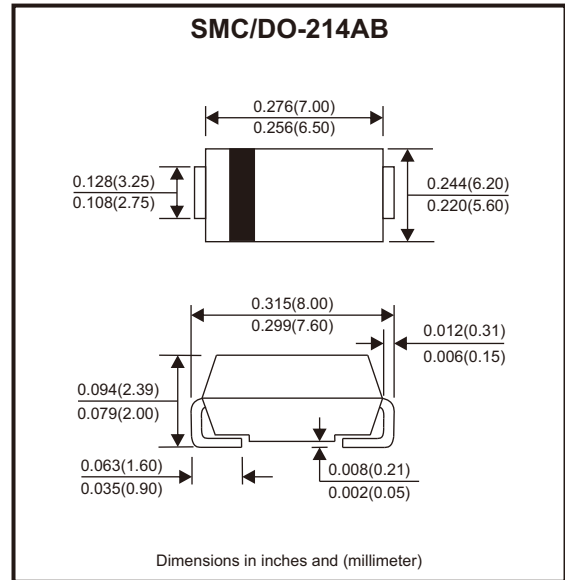
### Features

- For surface mounted applications.
- Low profile package.
- Glass passivated chip junction.
- Super fast recovery times for high efficiency.

### Mechanical data

- Case: SMC
- Terminals: Solderable per MIL-STD-750, method 2026.

### Circuit Diagram



### Maximum Ratings and Electrical Characteristics

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

Parameter	Symbols	ES8AC -HF	ES8BC -HF	ES8CC -HF	ES8DC -HF	ES8EC -HF	ES8GC -HF	ES8JC -HF	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	600	V
Maximum average forward rectified current at $T_c = 50^\circ C$	$I_{F(AV)}$	8							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	125							A
Max. forward voltage at 8A	$V_F$	0.98			1.3		1.7		V
Maximum DC reverse current at rated DC blocking voltage $T_a = 25^\circ C$ $T_a = 125^\circ C$	$I_R$	10 350							$\mu A$
Typical junction capacitance at $V_R = 4V, f = 1MHz$	$C_j$	90							pF
Maximum reverse recovery time (Note 1)	$t_{rr}$	35							ns
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JC}$	75 20							$^\circ C/W$
Operating and storage temperature range	$T_j, T_{stg}$	-55 ~ +150							$^\circ C$

Notes: 1. Measured with  $I_F = 0.5A, I_R = 1A, I_{rr} = 0.25A$ .  
2. P.C.B. mounted with 2.0" x 2.0" (5 x 5 cm) copper pad areas.

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## Rating and Characteristic Curves (ES8AC-HF Thru. ES8JC-HF)

Fig.1 - Max. Average Forward Current Rating

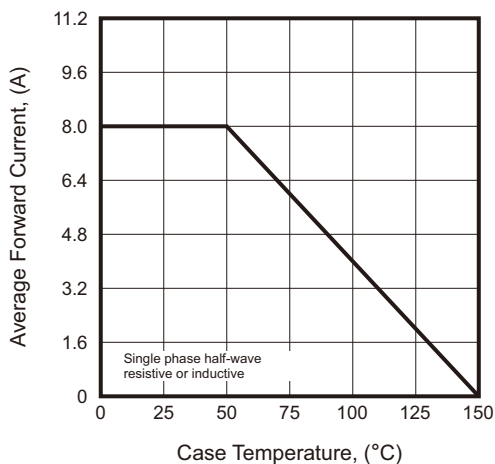


Fig.2 - Typical Reverse Characteristics

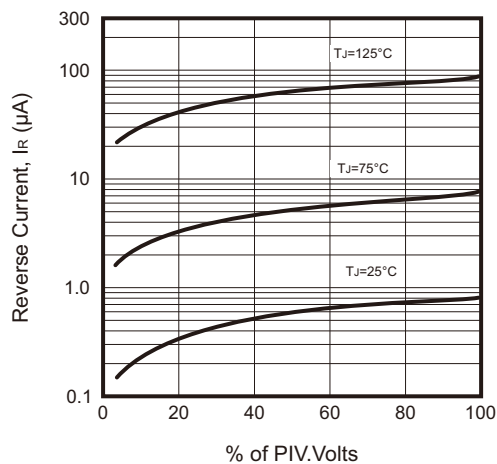


Fig.3 - Typical Forward Characteristic

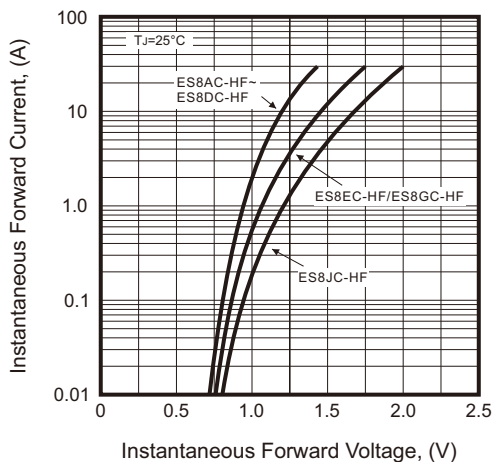


Fig.4 - Typical junction Capacitance

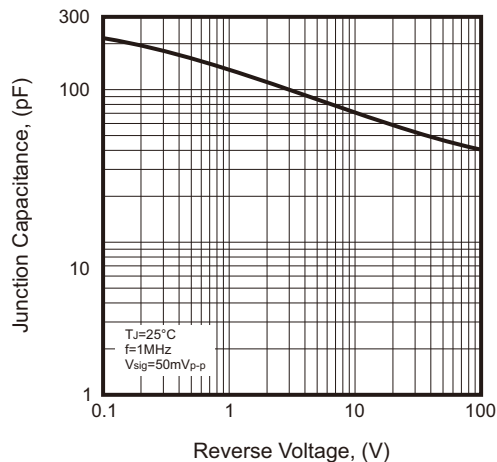
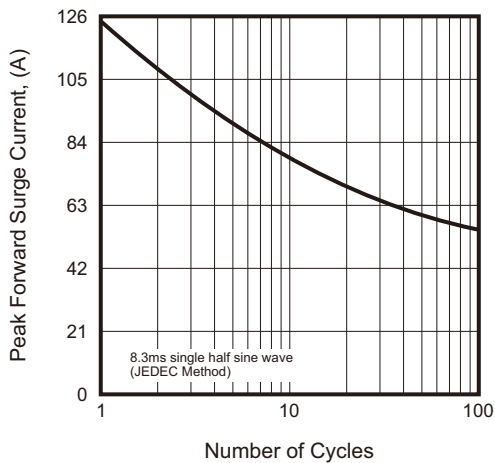
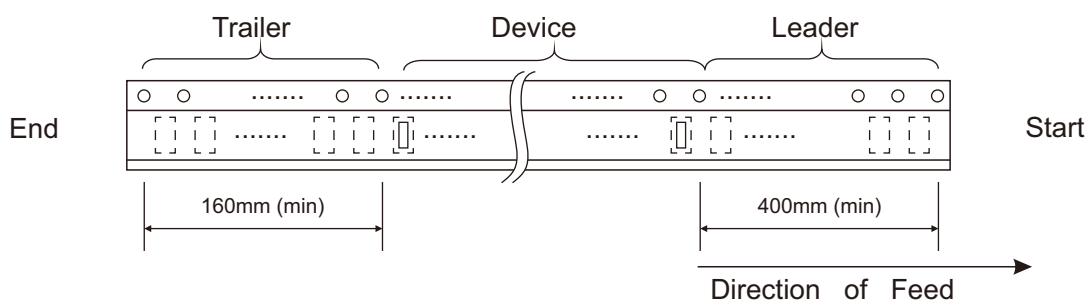
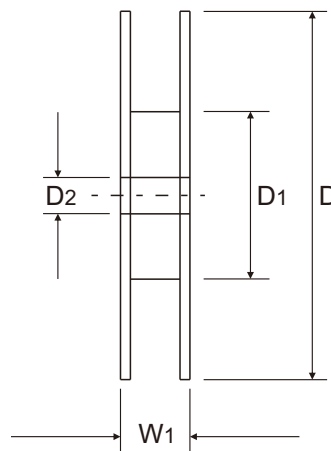
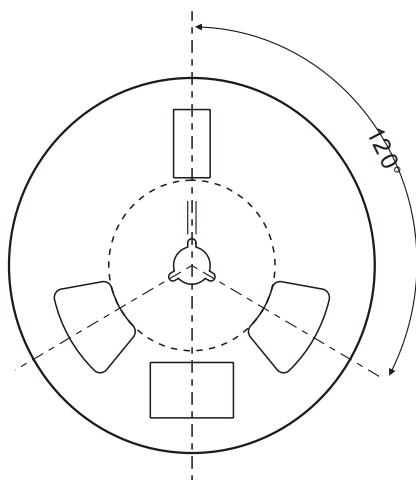
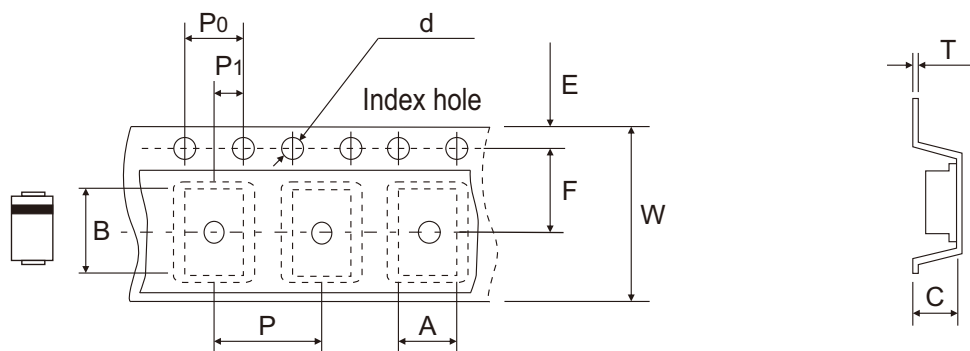


Fig.5 - Maximum Non-Repetitive Peak Forward Surge Current



## Reel Taping Specification



DO-214AB (SMC)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	6.22 ± 0.10	8.31 ± 0.10	2.49 ± 0.10	1.55 ± 0.05	330 ± 2.00	100.00 ± 1.00	13.00 ± 0.20
	(inch)	0.245 ± 0.004	0.327 ± 0.004	0.098 ± 0.004	0.061 ± 0.002	12.992 ± 0.079	3.937 ± 0.039	0.512 ± 0.008

DO-214AB (SMC)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	7.50 ± 0.10	8.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.28 ± 0.02	16.00 ± 0.30	21.00 + 2.00 - 1.00
	(inch)	0.069 ± 0.004	0.295 ± 0.004	0.315 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.011 ± 0.001	0.630 ± 0.012	0.827 + 0.079 - 0.039

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