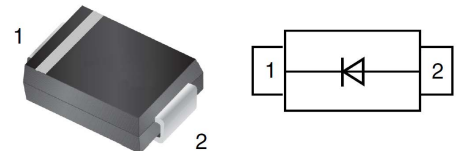


Super Fast Surface Mount Rectifier in DO-214AB/SMC

Features

- For surface mounted application
- Glass passivated junction chip
- Built-in strain relief
- ideal for automated placement
- Superfast recovery time for high efficiency



Mechanical Data

- **Case:** JEDEC DO-214AB(SMC)molded plastic
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

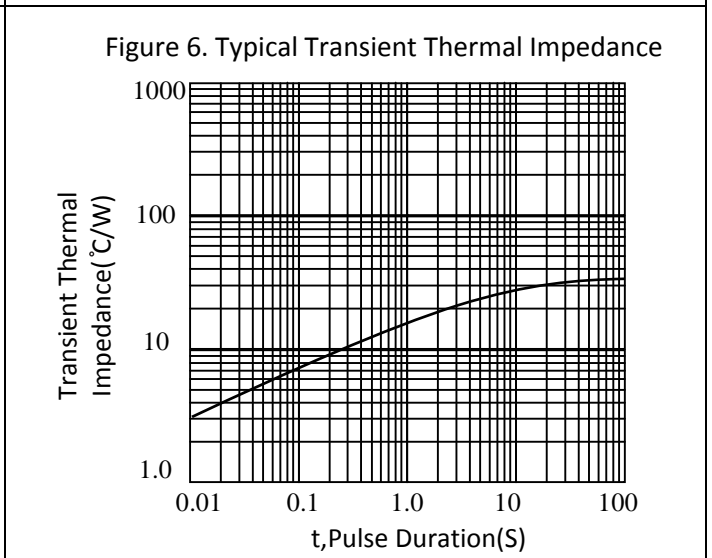
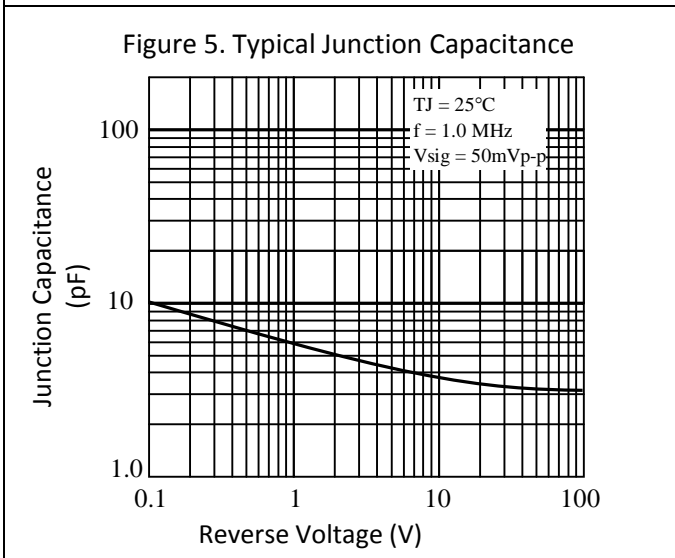
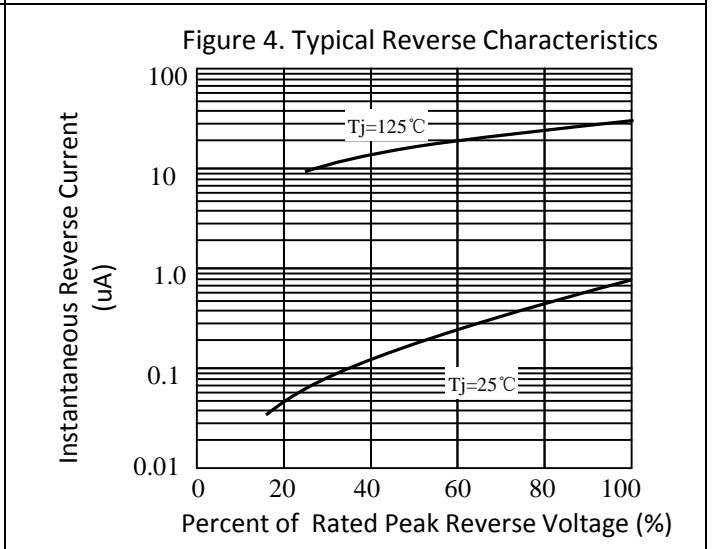
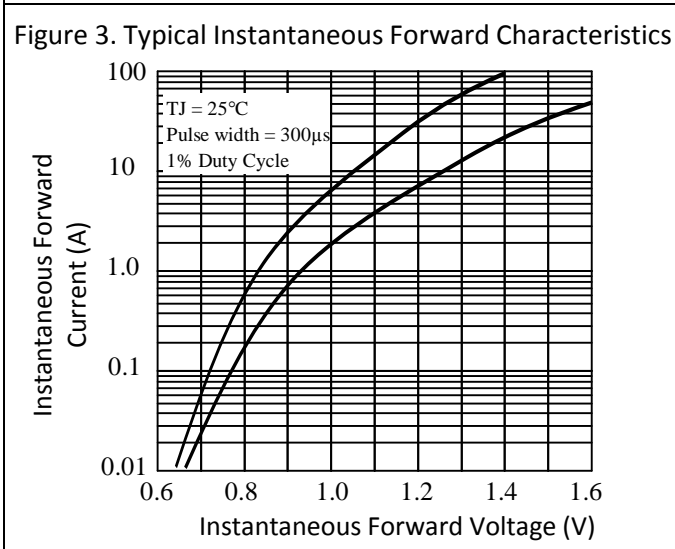
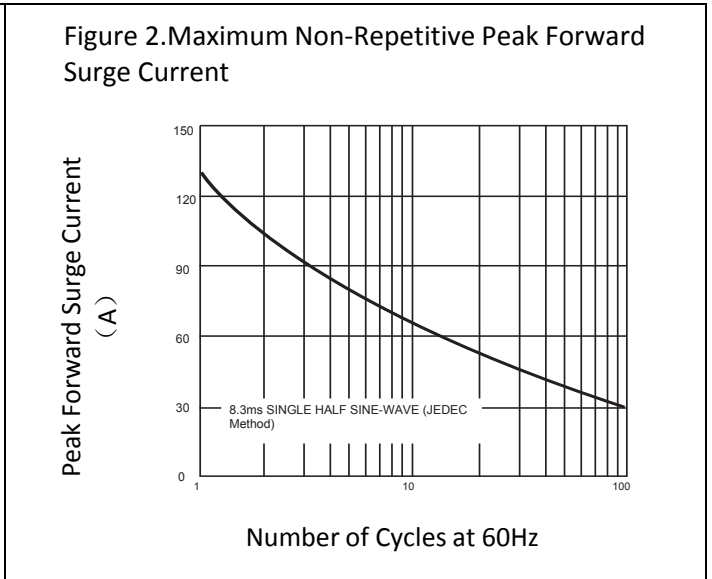
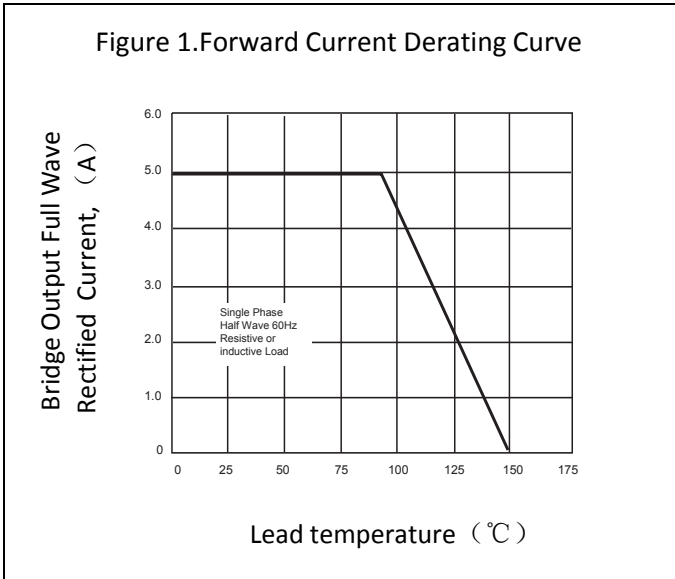
Maximum Ratings And Electrical Characteristics

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

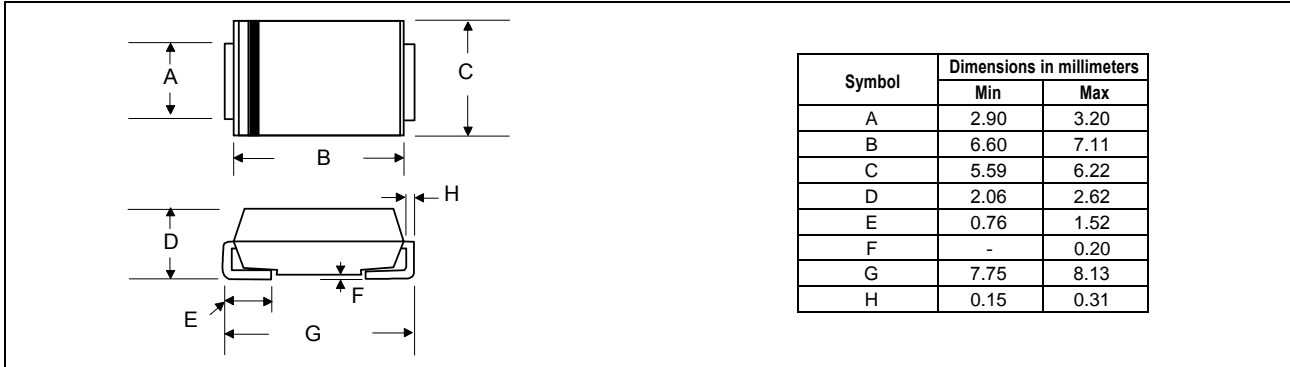
Parameter	Symbols	ES5A	ES5B	ES5D	ES5G	ES5J	ES5K	ES5M	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current See Fig. 1 @ $T_L=90^{\circ}C$	$I_{(AV)}$	5.0							Amp
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	130.0							Amps
Maximum instantaneous forward voltage @ 1.0A	V_F	0.95			1.25	1.7			Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	@ $T_A=25^{\circ}C$			10.0		@ $T_A=125^{\circ}C$		μA
Maximum reverse recovery time (Note 1)	t_r	35							nS
Typical junction capacitance (Note 2)	C_J	50							pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	47.0							$^{\circ}C/W$
Operating temperature range	T_J	-55 to +150							$^{\circ}C$
Storage temperature range	T_{STG}	-55 to +150							$^{\circ}C$

- Notes:**
1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
 2. Measured at 1 MHz and Applied $V_R=4.0$ Volts
 3. Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B. with $0.2" \times 0.2"$ (5.0 x 5.0 mm) Copper Pad Areas

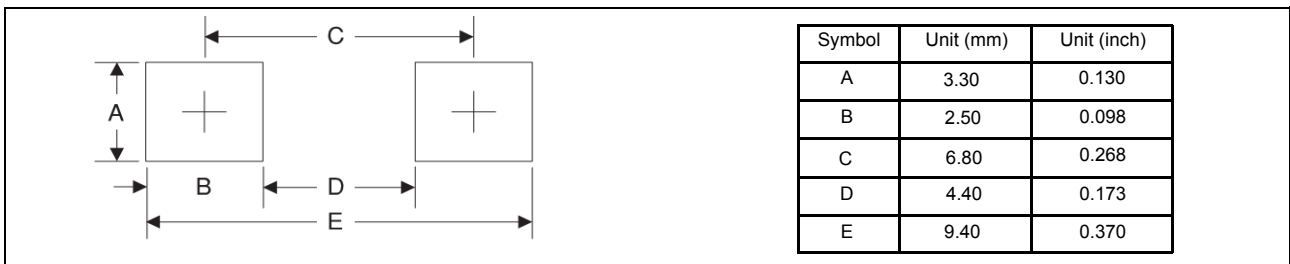
Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



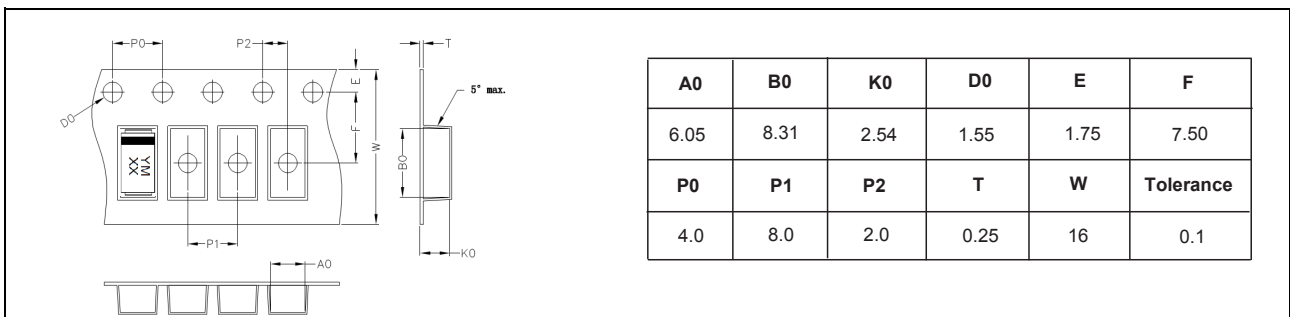
Package Dimensions



PAD Dimensions



Packing Information



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
ES5A thur ES5M	DO-214AB/SMC	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release
21-May-2019	2.0	Update

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