



ES5AC-ES5JC

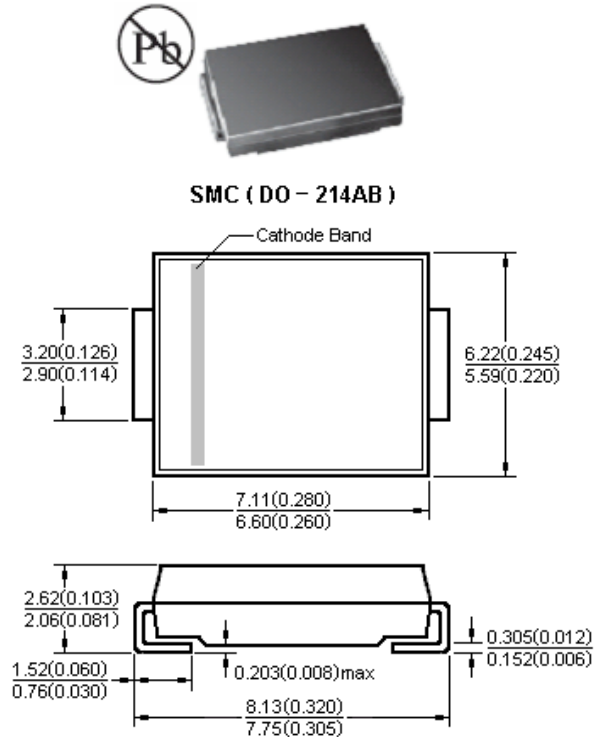
Surface Mount Superfast Rectifiers

Features

- Glass passivated chip junctions
- Ideal for automated placement
- Ultrafast reverse recovery time for high efficiency
- Low profile package
- High forward surge capability
- High temperature soldering: 260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/1 and WEEE 2002/96/EC

Mechanical Date

- **Case:** JEDEC DO-214AB molded plastic body over passivated chip
- **Terminals:** Solder plated, solderable per J-STD-002B and JESD22-B102D
- **Polarity:** Laser band denotes cathode end



Dimensions in millimeters and (inches)

Maximum Ratings and Electrical Characteristics Rating 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%

Type Number	Symbol	ES 5AC	ES 5BC	ES 5CC	ES 5DC	ES 5FC	ES 5GC	ES 5HC	ES 5JC	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current See Fig. 1	$I_{(AV)}$	5.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method) @ $T_J = 100^\circ\text{C}$	I_{FSM}	150								A
Maximum Instantaneous Forward Voltage @ 5.0A	V_F	1.0			1.25		1.65			V
Maximum DC Reverse Current @ $T_A = 25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_R	10				500				μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35								nS
Typical Junction Capacitance (Note 2)	C_j	45				30				pF
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	47				12				$^\circ\text{C/W}$
Operating Temperature Range	T_J	-55 to +150								$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150								$^\circ\text{C}$

- Notes:
1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
 2. Measured at 1 MHz and Applied $V_R=4.0$ Volts
 3. Units Mounted on P.C.B. with 0.6" x 0.6" (16mm x 16mm) Copper Pad Areas



Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

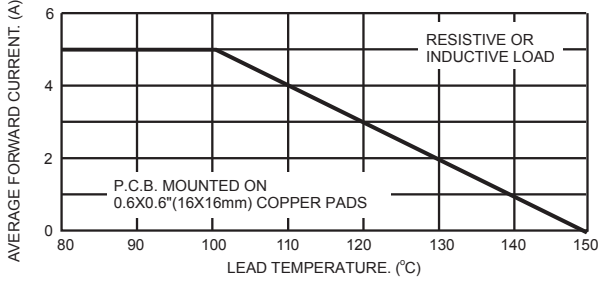


FIG.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

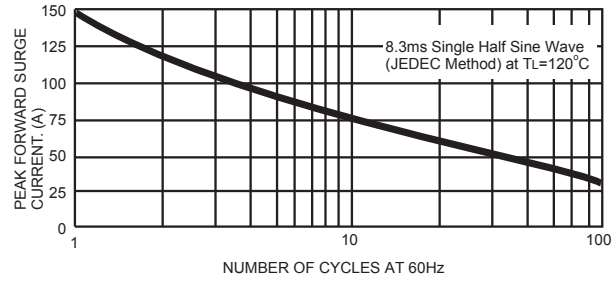


FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

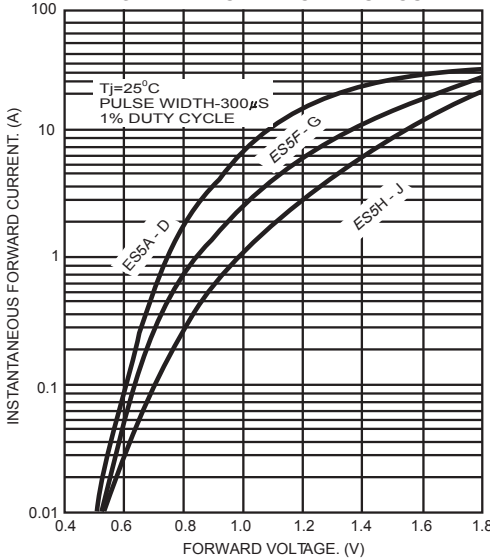


FIG.4- TYPICAL REVERSE CHARACTERISTICS

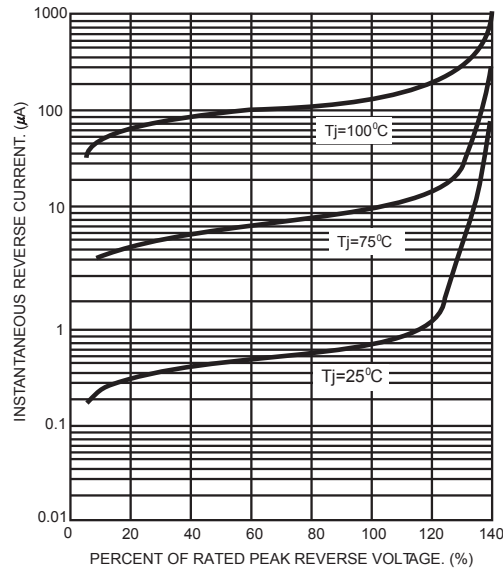


FIG.5- TYPICAL JUNCTION CAPACITANCE

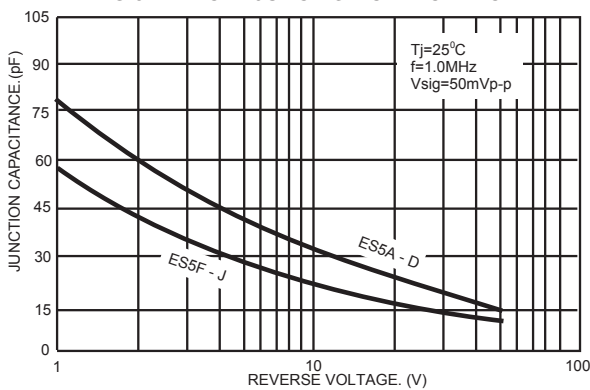


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE

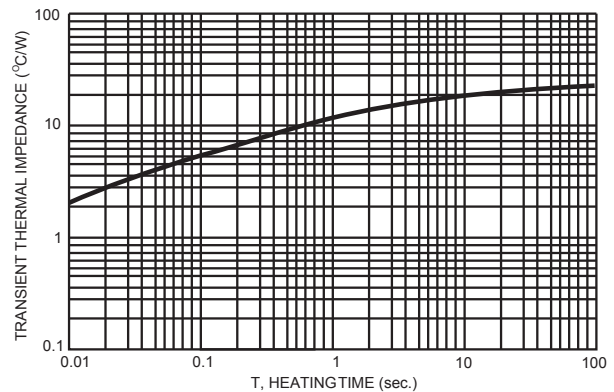
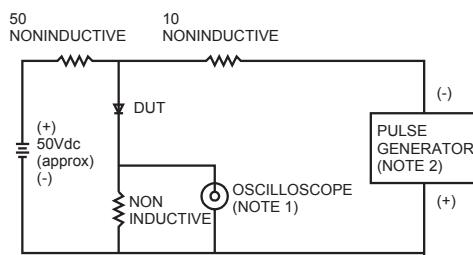
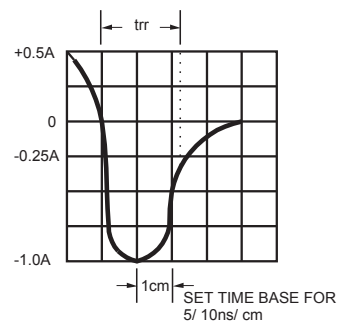


FIG.7- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pf
2. Rise Time=10ns max. Source Impedance=50 ohms



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Rectifiers](#) category:

Click to view products by [Juxing Electronic Technology](#) manufacturer:

Other Similar products are found below :

[70HFR40](#) [FR105 R0](#) [RL252-TP](#) [1N5397](#) [1N4005-TR](#) [1N4007-BP](#) [UFS120Je3/TR13](#) [20ETS12S](#) [RRE02VS6SGTR](#) [MS306](#) [A1N5404G-G](#)
[CRF02\(T5L,TEMQ\)](#) [ACGRB207-HF](#) [CLH07\(TE16L,Q\)](#) [CLH03\(TE16L,Q\)](#) [1N5395-TP](#) [UES1302](#) [ACGRC307-HF](#) [ACEFC304-HF](#) [DZ-](#)
[1380](#) [85HFR60](#) [40HFR60](#) [70HF120](#) [85HFR80](#) [SCF7500](#) [SM100](#) [ACGRA4001-HF](#) [SKN70/08](#) [NTE5819](#) [NTE5827](#) [NTE5828](#) [NTE5911](#)
[NTE5915](#) [NTE6104](#) [NTE6163](#) [NTE6164](#) [NTE6165](#) [NTE6364](#) [TSD3G](#) [SET130312](#) [NRVUS110VT3G](#) [UES1106](#) [UES1306](#)
[NRVUS240VT3G](#) [D5FE60-5063](#) [R4000GPS-TP](#) [D4015L56TP](#) [UES1306HR2](#) [FX20K120](#) [D20XB60-7101](#)