

Superfast Recovery Rectifier 50~600V 2A DO-214AB SMC

ES3x Series

MERITEK

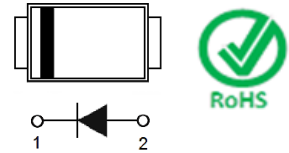
FEATURE

- Glass Passivated Die Construction
- High Forward Surge Current Capability
- Built-in Strain Relief, Ideal for Automated Placement
- Super-Fast Switching for High Efficiency
- Application: High Frequency Rectification, Freewheeling, Switching Mode Converters and Inverters in Computer, and Telecommunication



MECHANICAL DATA

- Case: DO-214AB, SMC, Epoxy Molded Meets 94V-0
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End



ELECTRICAL CHATACTERISTIC

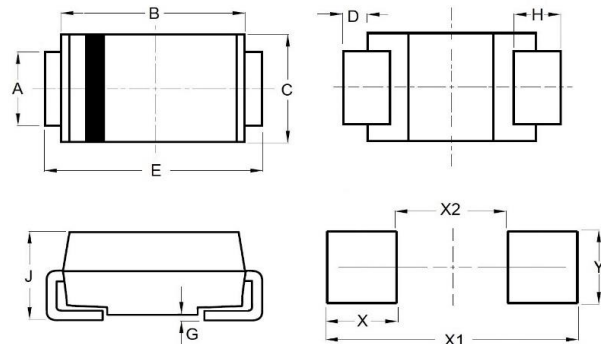
Parameter, T _A =25°C		Symbol	ES3A	ES3B	ES3C	ES3D	ES3E	ES3G	ES3J	Unit
Maximum Recurrent Peak Reverse Voltage		V _{RRM}	50	100	150	200	300	400	600	V
Maximum RMS Voltage		V _{RMS}	35	70	105	140	210	280	420	V
Maximum DC Blocking Voltage		V _{DC}	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at T _L =95°C		I _{F(AV)}	3							A
Peak Forward Surge Current. 8.3ms Single Half-Sine-Wave Superimposed on Rate Load		I _{FSM}	100							A
Maximum Forward Voltage at I _F =3A		V _F	0.95	0.95	0.95	0.95	1.30	1.30	1.70	V
Maximum Reverse Current at Rated DC Blocking Voltage	T _J =25°C	I _R	5							μA
	T _J =100°C		200							
Typical Junction Capacitance		C _J	45							pF
Typical Thermal Resistance		R _{θJL}	16							°C/W
Maximum Reverse Recovery Time		t _{rr}	35							ns
Operating Junction Temperature Range		T _J , T _{STG}	-65 ~ +150							°C

Notes:

1. Typical Junction Capacitance was measured at 1 MHz and applied reverse voltage of 4.0 V_{DC}.
2. Reverse recovery test conditions: I_F=0.5A, I_R=1A, I_{RR}=0.25A
3. Thermal resistance from junction to lead mounted on P.C.B. with 0.3x0.3" (8.0x8.0mm) copper pad areas
4. Single phase, half-wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%

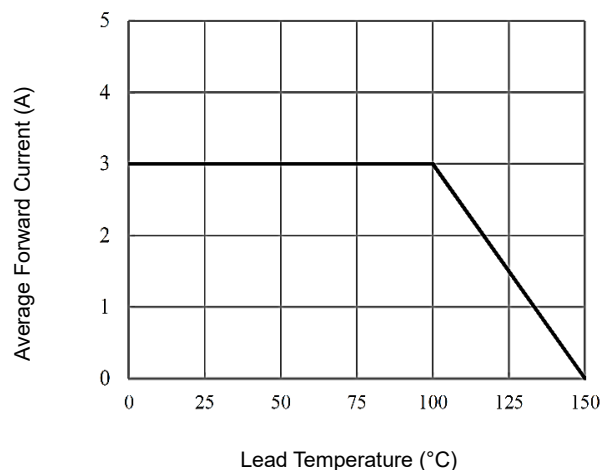
DIMENSIONS

Item	Min. (mm)	Max. (mm)
A	2.750	3.250
B	6.520	7.110
C	5.520	6.220
D	0.152	0.305
E	7.640	8.130
G	0.000	0.203
H	0.760	1.520
J	2.000	2.620
X	2.500	
X1	9.400	
X2	4.400	
Y	3.300	

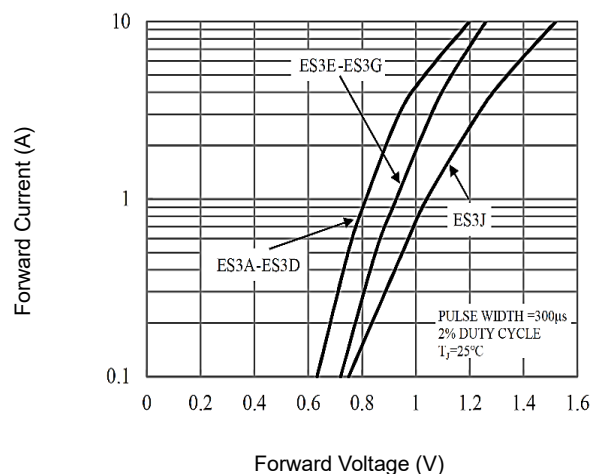


CHARACTERISTIC CURVES

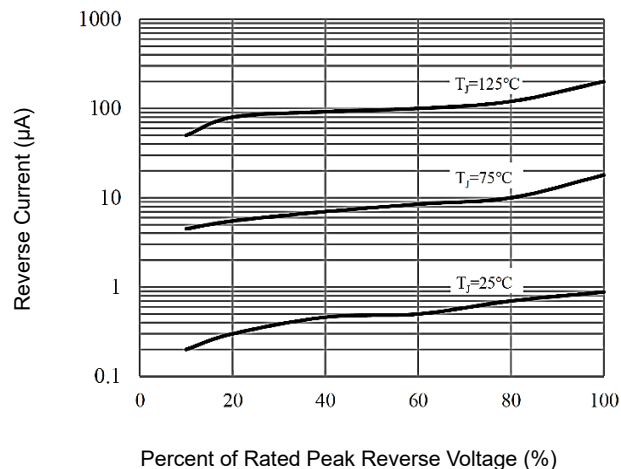
Forward Current Derating Curve



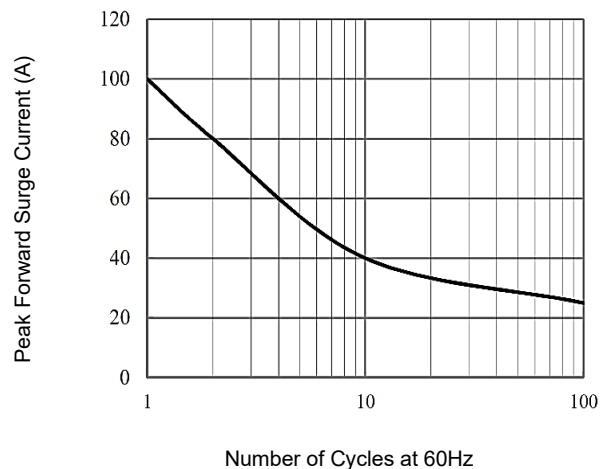
Typical Forward Characteristics



Typical Reverse Characteristics



Non-Repetitive Peak Forward Surge Current



*Specifications subject to change without notice.