

ES3A THRU ES3J

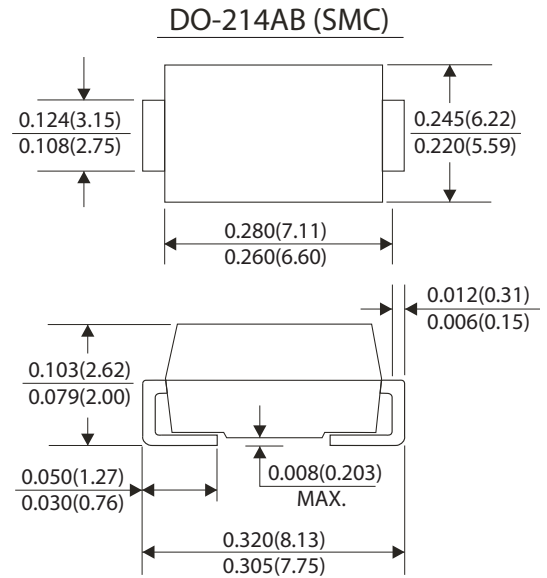
CURRENT 3.0 Amperes
VOLTAGE 50 to 400 Volts

Features

- For surface applications in order optimize board space
- Low profile package
- Built-in strain relief, ideal for automated placement
- Super fast recovery time
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ideally suited for use in very high frequency switching power supplies, inverters and as free wheeling diodes
- Glass passivated chip junction
- High temperature soldering guaranteed: 250°C/10 seconds, at terminals

Mechanical Data

- Case : JEDEC SMC(DO-214AB) molded plastic body
- Terminals : Plated axial lead solderable per MIL-STD-750, method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight : 0.007 ounce, 0.25 gram



Dimensions in inches and (millimeters)

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%)

	Symbols	ES3A	ES3B	ES3C	ES3D	ES3G	ES3J	Units
Maximum recurrent peak reverse voltage	V _{RRM}	50	100	150	200	400	600	Volts
Maximum RMS voltage	V _{RMS}	35	70	105	140	280	420	Volts
Maximum DC blocking voltage	V _{DC}	50	100	150	200	400	600	Volts
Maximum average forward rectified current at T _L =100°C	I _(AV)	3.0						Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) at T _L =100°C	I _{FSM}	100.0						Amps
Maximum instantaneous forward voltage at 3.0A	V _F	0.95			1.25			Volts
Maximum reverse current at rated voltage	T _A =25°C	10.0						µA
	T _A =100°C	500			350			
Maximum reverse recovery time (Note 1)	T _{rr}	35						ns
Typical thermal resistance (Note 3)	R _{θJL}	12.0						°C/W
	R _{θJA}	47.0						
Typical junction capacitance (Note 2)	C _J	45.0			30.0			pF
Operating junction and storage temperature range	T _J T _{STG}	-55 to +150						°C

Notes:

- (1) Test conditions: I_F=0.5A, I_R=1.0A, I_{rr}=0.25A.
- (2) Measured at 1MHz and applied reverse voltage of 4.0 Volts.
- (3) Units mounted on P.C.B 0.31×0.31"(0.8×0.8mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES ES3A THRU ES3J

FIG.1-FORWARD CURRENT DERATING CURVE

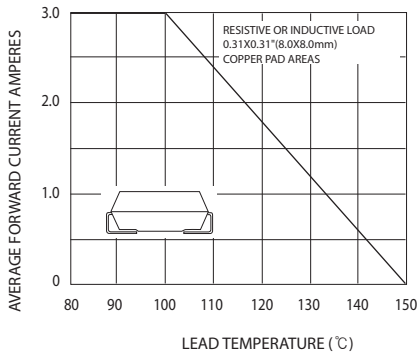


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

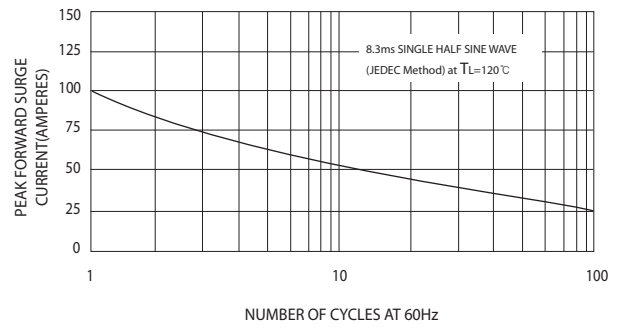


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

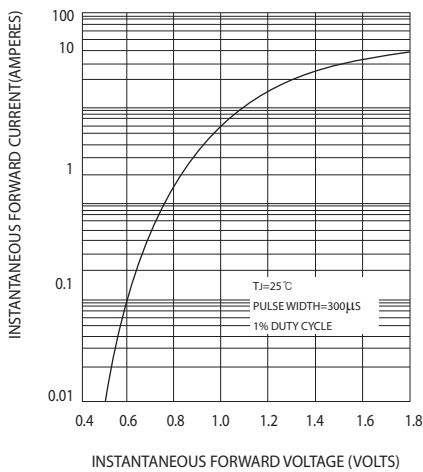


FIG.4-TYPICAL REVERSE CHARACTERISTICS

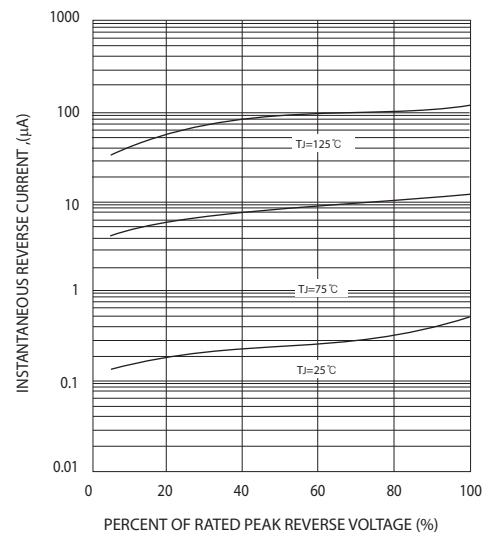


FIG.5-TYPICAL JUNCTION CAPACITANCE

