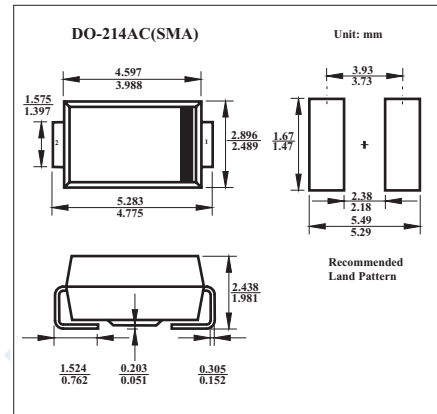


Surface Mount Ultrafast Efficient Plastic Rectifier

KS1A THRU KS1D (ES1A THRU ES1D)

■ Features

- For surface mount applications
- Low profile package
- Ideally suited for use in
very high frequency switching power supplies,
inverters and as a free wheeling diodes
- Ultrafast recovery times for high efficiency
- Low forward voltage
- Low leakage current
- Glass passivated chip junction



■ Absolute Maximum Ratings $T_A=25^{\circ}\text{C}$

Characteristic	Symbol	KS1A	KS1B	KS1C	KS1D	Unit
Maximum recurrent peak reverse voltage	VRRM	50	100	150	200	V
Maximum RMS voltage	VRMS	35	70	105	140	V
Maximum DC blocking voltage	VDC	50	100	150	200	V
Maximum average forward rectified current at TL=25℃	I(AV)	1				A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	IFSM	30				A
Maximum instantaneous forward voltage at 1.0A	VF	0.92				V
Maximum DC reverse current at rated TA= 25℃ TA= 100℃	IR	5 100				uA
Maximum reverse recovery time *1	trr	15				ns
Reverse recovery time TA= 25℃ TA= 100℃ *3	trr	25 35				ns
Maximum stored charge TA= 25℃ TA= 100℃ *3	Qrr	10 25				nC
Typical junction capacitance *2	CJ	7				pF
Maximum thermal resistance *1	R θ JA	85				℃/W
	R θ JL	35				
Operating and storage temperature range	TJ, TSTG	-55 to 150				℃

*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 1.0MHz and applied reverse voltage of 4.0V

*3 t_{rr} and Q_{rr} measured at: $I_F=0.6\text{A}$, $V_R=30\text{V}$, $dI/dt=50\text{A/ms}$, $I_{rr}=10\%$ I_{RM} for measurement of t_{rr}