



JSPJ540A

5A Schottky Barrier Rectifier

Rev.1.2

For surface mounted applications in order to optimize board space

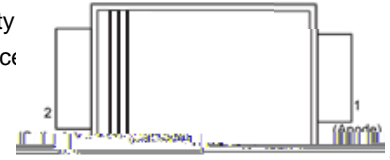
Lead free in compliance with EU RoHS 2011/6: 

Ultra low forward voltage drop

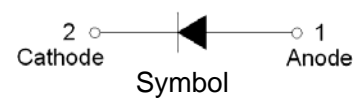
Low power losses, high efficiency

High current capability

Low thermal resistance



DO-214AB (SMC)



MECHANICAL DATA

Case: SMC molded plastic

Terminals: Solder plated, solderable per J-STD-002

Polarity: Color band denotes cathode end

ABSOLUTE MAXIMUM RATING (Rating at 25 °C ambient temperature unless otherwise specified.)

Parameter	Symbol	JSPJ540A	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum RMS voltage	V_{RMS}	28	V
Maximum DC blocking voltage	V_{DC}	40	V
Maximum average forward current	$I_{F(AV)}$	5.0	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120	A
Operating junction temperature range	T_j	-55 to +125	
Storage temperature range	T_{stg}	-55 to +150	

ELECTRICAL CHARACTERISTICS (Rating at 25 °C ambient temperature unless otherwise specified.)

Parameter	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=5A$ V_F			0.55	V
Reverse current at rated DC blocking voltage	$T_A=25$ I_R			0.1	mA
	$T_A=100$			15	
Junction capacitance	$V_R=4.0V, f=1MHz$ C_J		400		pF

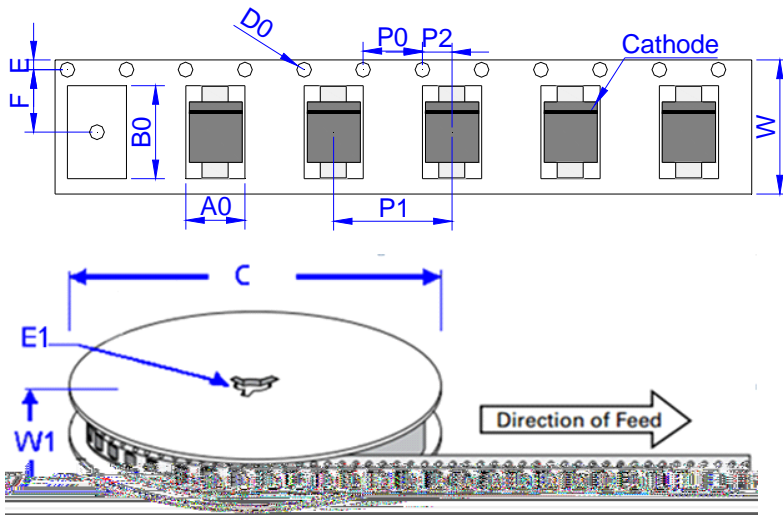


THERMAL RESISTANCES

Symbol	Parameter	JSPJ540A	Unit
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$R_{th(j-a)}$

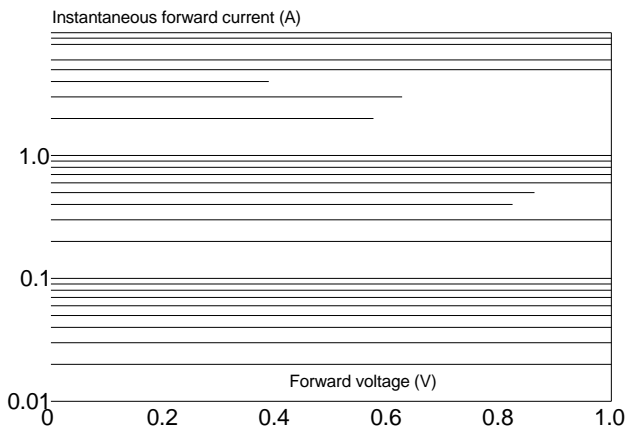
TAPE AND REEL SPECIFICATION-SMC



CHARACTERISTICS CURVE

FIG.1: Typical forward characteristics (25)

FIG.2: Typical reverse characteristics



CHARACTERISTICS CURVE

FIG.3: Maximum non-repetitive peak forward surge current

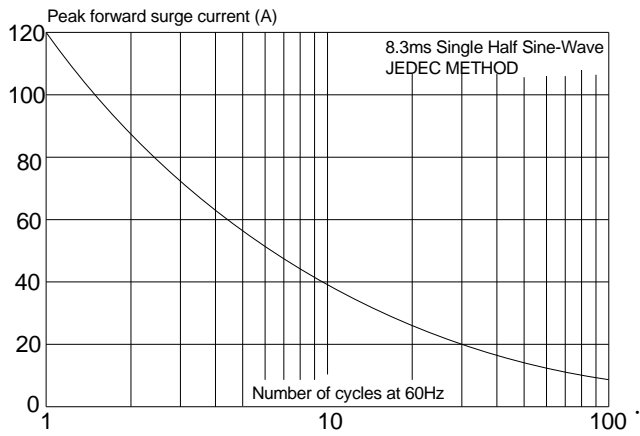


FIG.4: Forward current derating curve

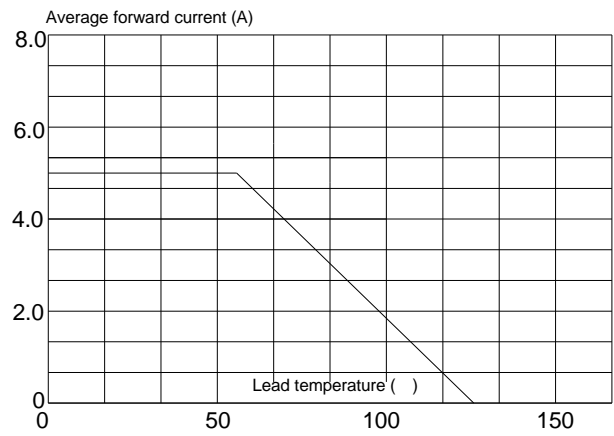


FIG.5: Maximum transient thermal impedance

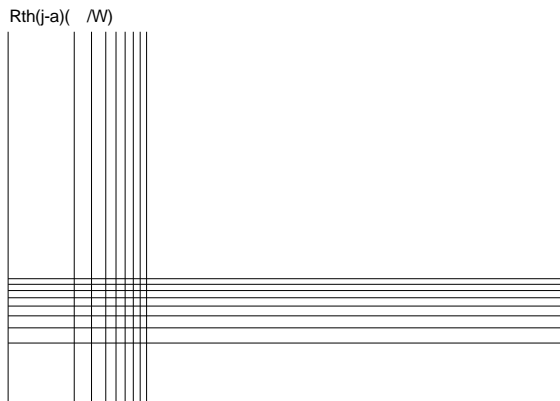


FIG.6: Typical junction capacitance