



SMC



Features

Low forward voltage drop
 Low power losses
 Advanced trench technology
 Glass passivated junction
 High current capability
 High efficiency operation
 Extremely low thermal resistance
 Halogen free and RoHS compliant

Mechanical Data

CASE: SMCJ(DO-214AB) Molded Plastic
 Polarity: Color band denotes cathode end
 Mounting position: ANY
 Weight: 0.009 ounces, 0.25 gram

Maximum Ratings & Electrical Characteristics

(Ratings at 25°C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.)

Parameter			Symbol	Limit		Unit
Maximum repetitive peak reverse voltage			V _{RRM}	45		V
Maximum average forward rectified current			I _{F(AV)}	10		A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode			I _{FSM}	280		A
Operating junction and storage temperature range			T _J , T _{STG}	-40 to +150		°C
Typical thermal resistance per diode (Mounted on FR-4 PCB)			R _{θJA}	25		°C/W
Instantaneous forward voltage per diode			V _{F(1)}	TYP.	MAX.	V
	I _F =3A	T _J =25°C		0.34	-	
	I _F =5 A			0.39	-	
	I _F =10A			0.45	-	
	I _F =3A	T _J =125°C		0.28	-	
	I _F =5 A			0.31	-	
	I _F =10A			0.35	-	
Instantaneous reverse current per diode at rated reverse voltage		I _{R(2)}		150	uA	
			-	50	mA	

Notes:

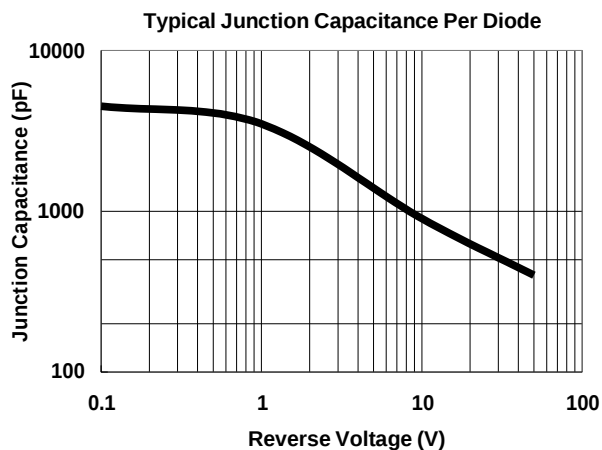
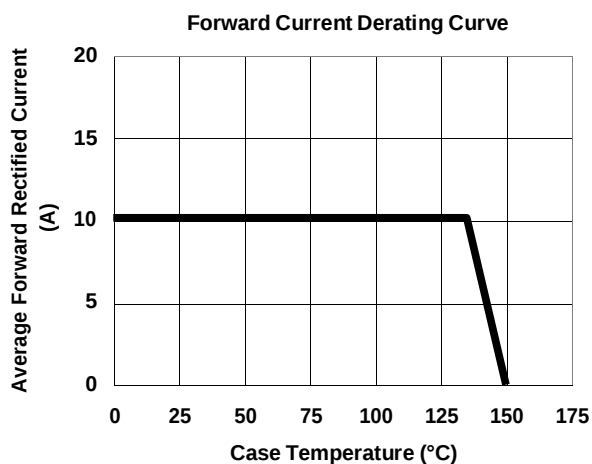
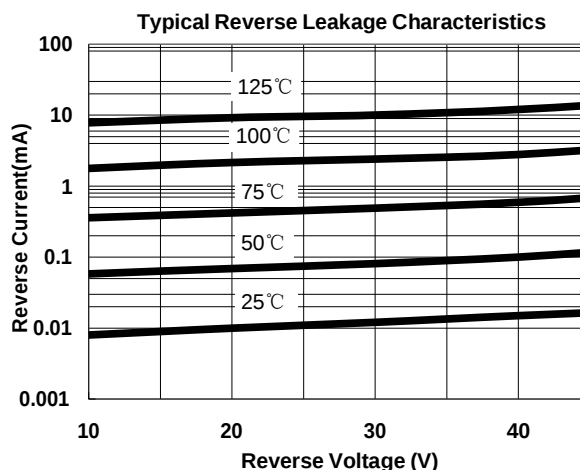
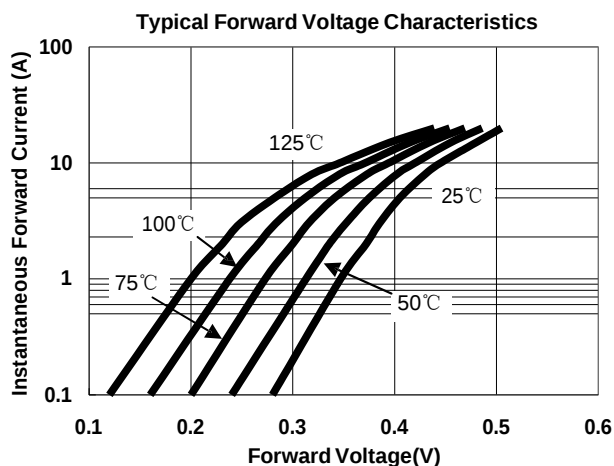
(1) Pulse test: 300 μ s pulse width, 1 % duty cycle

(2) Pulse test: Pulse width $\leq$ 40 ms

Summary of Packing Options

Package	Packing Description	Packing Quantity	IndustryStandard
SMC	Tape/Reel, 13" reel	3000	EIA-481-1

Ratings and Characteristic Curves



Package Outline Dimensions: SMC(DO-214AB)

