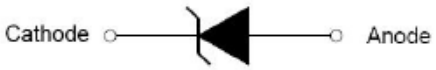
SMC



Features

Low forward voltage drop
Guarding protection
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℃ ambient temperature unless otherwise specified. Single phase half-wave 60Hz,resistive or inductive load, for capacitive load current derate by 20%.)

CHARACTERISTICS	SYMBOL	SS1045C	SS1060C	SS10100C	UNITS
	Marking	SS1045	SS1060	SS10100	
Maximum repetitive peak reverse voltage	V_{RRM}	45	60	100	V
Maximum RMS voltage	V_{RWS}	31	42	70	V
Maximum DC blocking voltage	V_{DC}	45	60	100	V
Maximum average forward rectified current at T_L=90℃	$I_{F(AV)}$	10.0			A
Peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	150			A
Maximum instantaneous forward voltage at I_{FM}=10.0A (NOTE1)	V_F	0.55	0.75	0.85	V
Maximum DC reverse current T_J=25℃ at rated DC blocking voltage T_J=125℃	I_R	0.2 50.0		0.1 5.0	m A
Maximum thermal resistance	$R_{\theta JL}$	28			°C/W
Operating temperature range	T_J	-55 ---- +125			°C
Storage temperature range	T_{STG}	-55 ---- +150			°C

NOTE: 1.Pulse test: Pulse width 300us,duty cycle 1 %

Summary of Packing Options

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

Ratings and Characteristic Curves

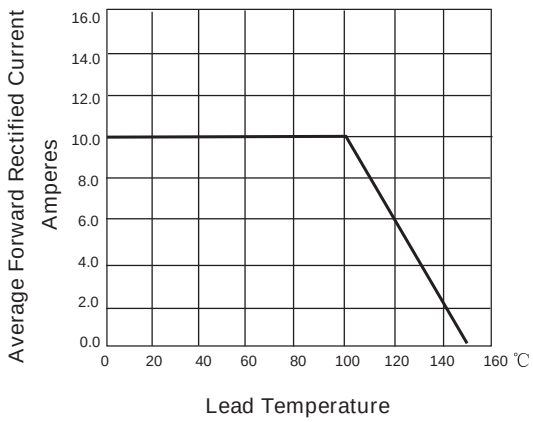


FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

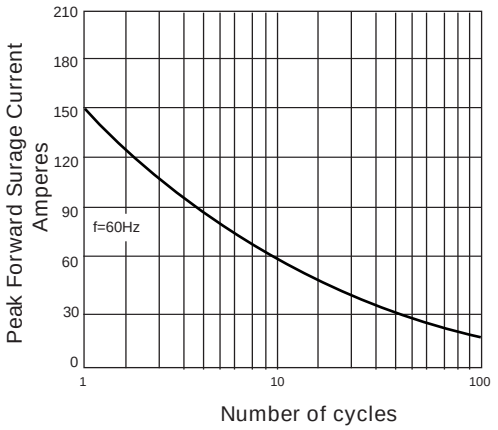


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

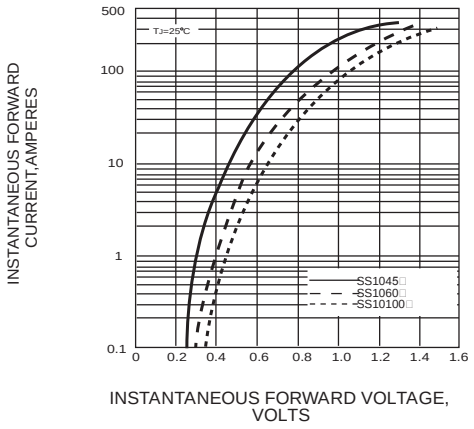


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

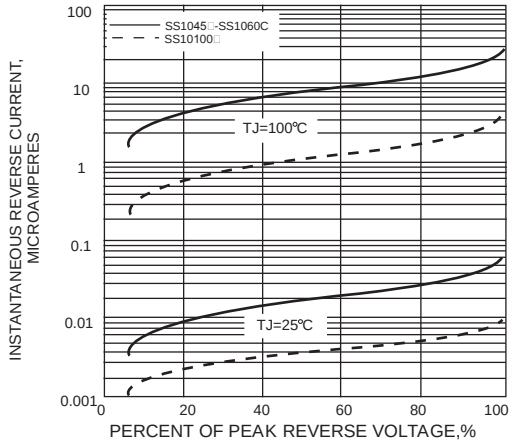
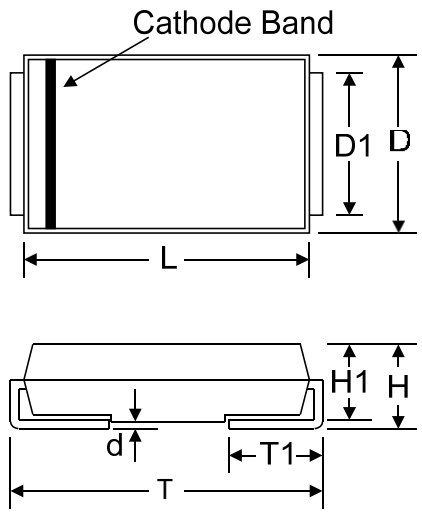


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

Package Outline Dimensions: SMC(DO-214AB)



Dim	Millimeters		Inches	
	Min	Max	Min	Max
L	6.75	6.95	0.265	0.274
D	5.75	5.95	0.226	0.234
D1	2.9	3.1	0.114	0.122
T	7.9	8.1	0.311	0.319
T1	1.0	1.4	0.039	0.055
d	-	0.2	-	0.008
H	2.45	2.65	0.096	0.104
H1	2.3	2.5	0.09	0.098