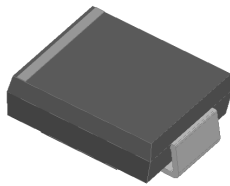


Surface Mount Fast Recovery Rectifier

DO-214AB (SMC)

ES10GC



Cathode  Anode

Marking:ES10GC

Features

- Low forward voltage drop
- Low leakage
- High current capability
- Super fast switching speed
- High forward surge capability
- High reliability.

Mechanical Data

- Epoxy: UL 94V-O rate flame retardant
- Lead: lead solderable per MIL-STD-202, method 208 guaranteed
- Polarity: Color band denotes cathode end

■Maximum Ratings (T_a=25°C Unless otherwise specified)

Parameter	Symbols	ES10GC	Units
Maximum Repetitive Peak Reverse Voltage	VRRM	400	V
Maximum RMS voltage	VRMS	280	V
Maximum DC Blocking Voltage	VDC	400	V
Maximum Average Forward Rectified Current	I(AV)	10.0	A
Reverse Recovery Time. IF=0.5A,IR=1A,IRR=0.25A	Trr	35	ns
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	IFSM	175	A
I ² t rating for fusing (1ms< t < 8.3ms)	I ² t	93.3	A ² S
Maximum Forward Voltage at 10.0A and 25°C	VF	1.25	V
Maximum DC Reverse Current @TA=25 °C at Rated DC Blocking Voltage @TA=125 °C	IR	5 500	μA
Typical Junction Capacitance (Note1)	Cj	82	pF
Operating and Storage Temperature Range	Tj, Tstg	-55 ~ +150	°C
Typical thermal resistance (Note 2)	RthJA RthJC	40 10	°C/W

Note: 1. Measured at 1MHz and applied reverse voltage of 4 VDC.

2. Thermal resistance between junction and ambient and between junction and lead mounted on P.C.B with 3mm*3mm copper pad areas.

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE

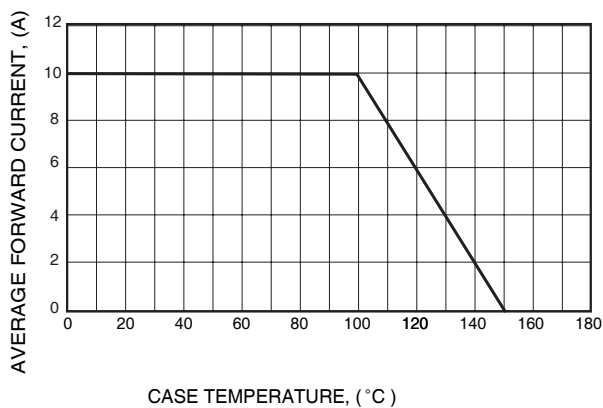


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

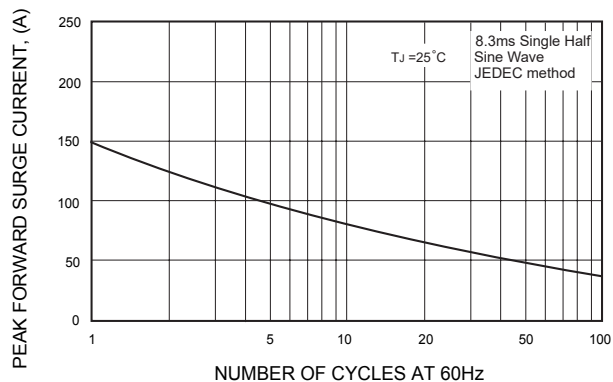


FIG. 3 - TYPICAL REVERSE CHARACTERISTICS

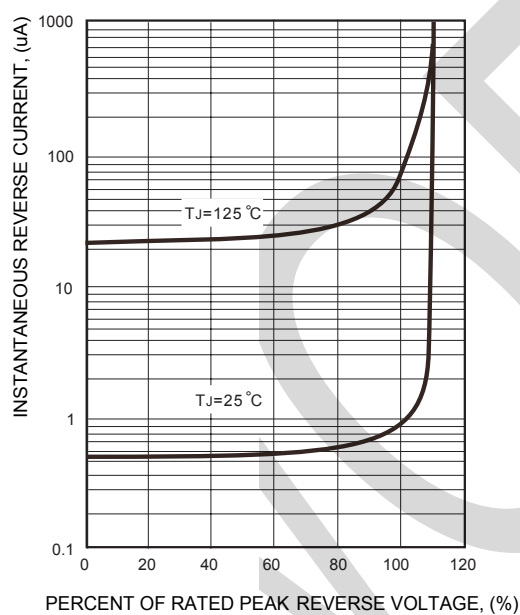
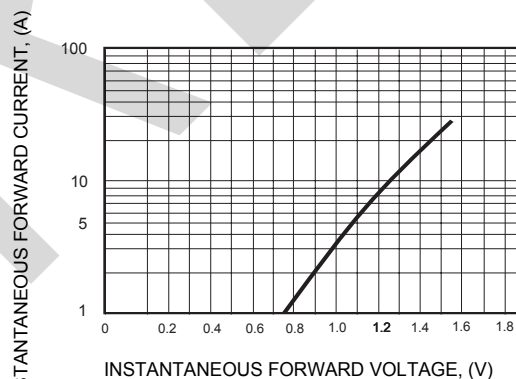
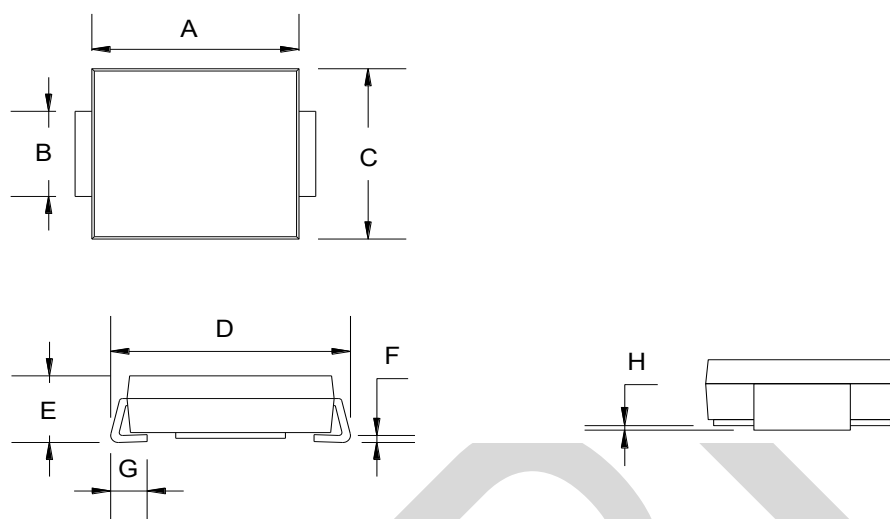


FIG. 4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



PACKAGE OUTLINE DIMENSIONS

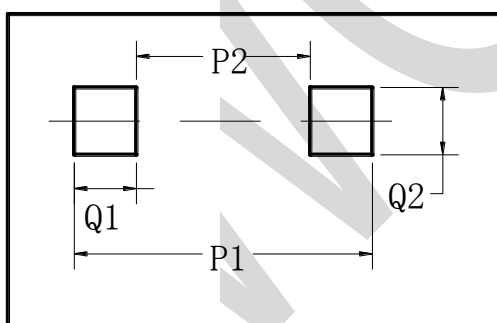
DO-214AB(SMC)



SMC Mechanical Data

UNIT		A	B	C	D	E	F	G	H
mm	max	7.1	3.3	6.25	8.1	2.6	0.30	1.5	0.2
	min	6.6	2.8	5.6	7.7	2.0	0.15	0.75	0.1
mil	max	279.5	129.9	246.1	318.9	102.3	11.8	59.1	7.87
	min	259.8	110.2	220.5	303.1	78.7	5.90	29.5	3.93

SMC Suggested Pad Layout



UNIT		P1	P2	Q1	Q2
mm	Typ	9.9	3.85	3.0	3.8
mil	Typ	389.7	151.5	118.1	149.6