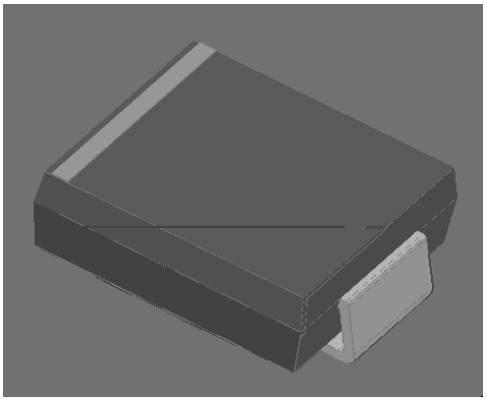
Surface Mount Schottky Rectifier



Features

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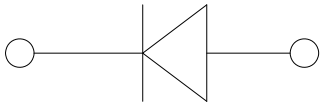
" 3DUW QR Z4LWKHVDQIVL$(3& 4 TXDOLILHG

Typical Applications

For use in low voltage high frequency inverters, freewheeling, DC/DC converters, automotive and polarity protection applications.



Mechanical Data

- **Package:** DO-214AB (SMC)
  Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** Cathode line denotes the cathode end

■Maximum Ratings (T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	SS56Q
Device marking code			SS56
Repetitive peak reverse voltage	V_{RRM}	V	60
Maximum RMS voltage	V_{RMS}	V	42
Maximum DC blocking voltage	V_{DC}	V	60
Maximum average forward rectified current at T_L (Fig.1)	I_O	A	5.0
Surge(non-repetitive)forward current @60Hz half-sine wave,1 cycle, T_J=25	I_{FSM}	A	120
Voltage rate of change (rated V_R)	dV/dt	V/μs	10000
Storage temperature	T_{stg}		-55 ~+150
Junction temperature and storage temperature	T_J		-55 ~+150

■Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	TEST CONDITIONS		TYP	MAX	UNIT
Instantaneous forward voltage	V_F	I_F=5A	T_J=25	0.6	0.7	V
	J	V_R=4V,f=1MHz		215	-	pF
Reverse recovery time	T_{RR}	IF=0.5A,IR=1A,IRR=0.25A		13		ns

■Thermal Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	SS56Q
Thermal Resistance	$R_{\theta J-A}$	/W	48[1)]
	$R_{\theta J-L}$		13[1)]
	$R_{\theta J-c}$		10

Note(1)
Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.6" x 0.6" (16 mm x 16 mm) copper pad areas

■Ordering Information (Example)

PREFERED P/N	PACKAGE CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
SS56Q	F1	Approximate 0.251	3000	42000	13” reel

■ Characteristics (Typical)

Fig.1:Forward Current Derating Curve

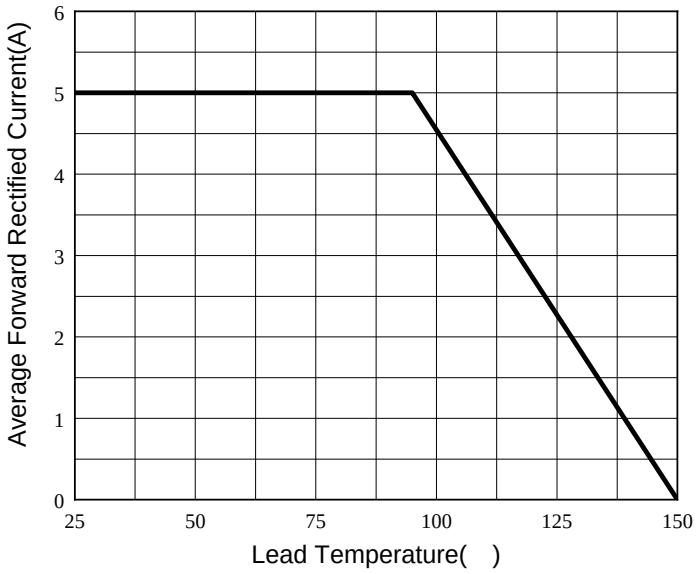


Fig.2:Maximum Non-Repetitive Peak Forward Surge Current

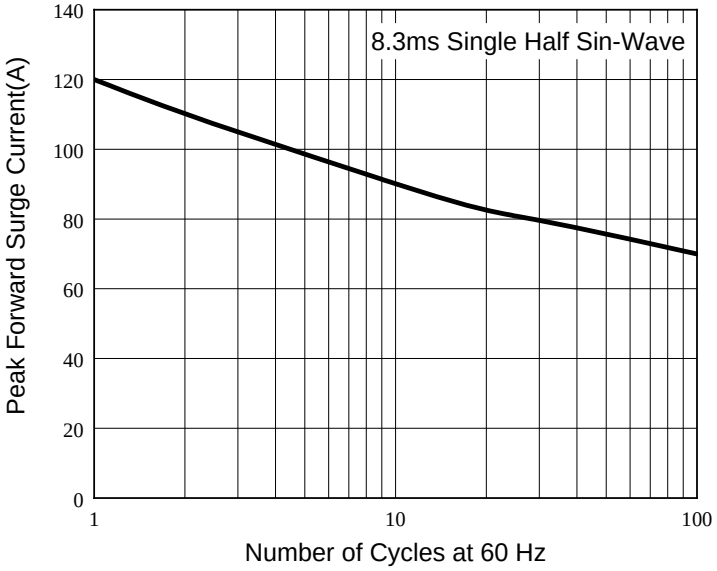


Fig.3:Typical Instantaneous Forward Characteristics

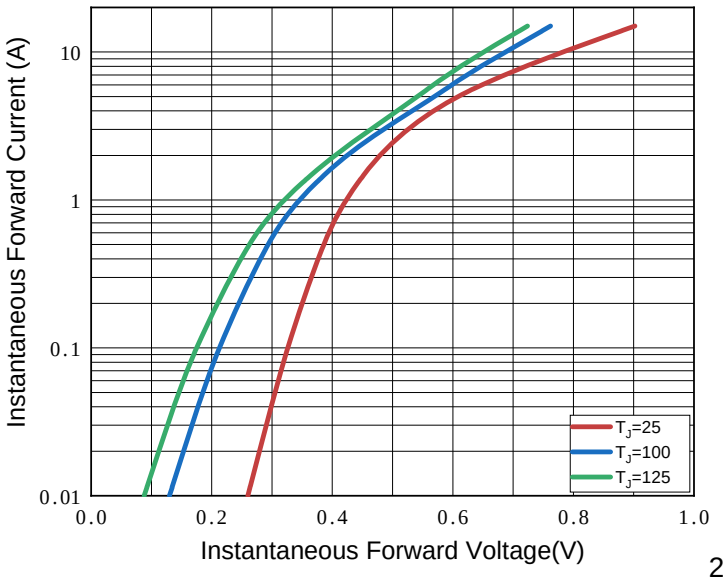
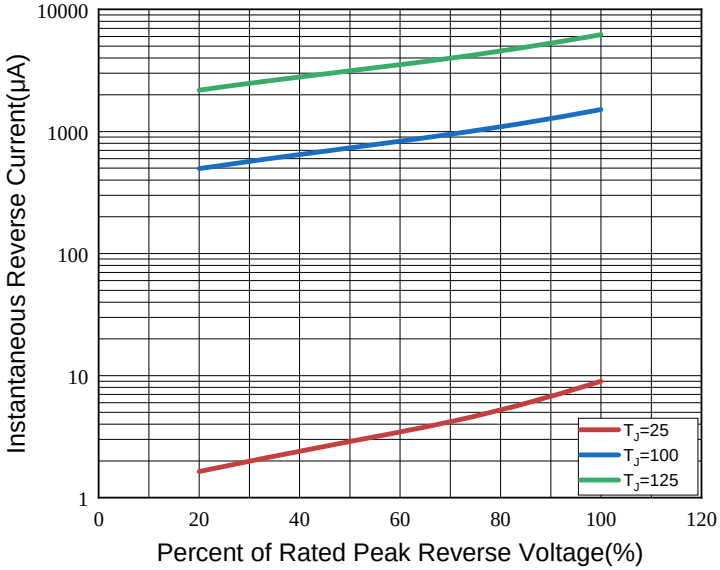


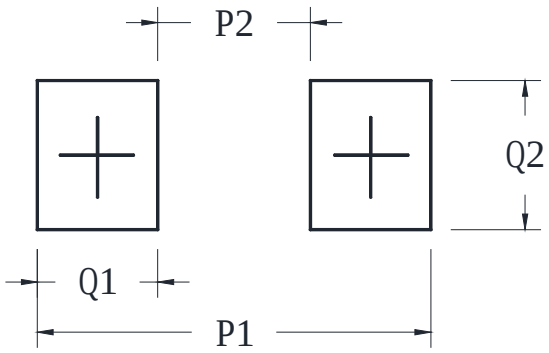
Fig.4:Typical Reverse Leakage Characteristics



■ Outline Dimensions

DO-214AB (SMC)		
Dim	Min	Max
A	6.60	7.11
B	2.85	3.27
C	5.59	6.22
D	7.75	8.13
E	1.99	2.61
F	0.15	0.31
G	0.76	1.52
H	0.05	0.20

■ Suggested pad layout



Dim	Typ
P1	9.9
P2	3.84
Q1	3.03
Q2	3.82

Dimensions in millimeters

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