Ultra Fast Recovery Surface Mounted Rectifiers

Reverse Voltage - 1200V

Forward Current - 1.0 A

Pinning

1.Cathode	2.Anode



DO-214AC/SMA

Marking Code	
US1Q	YFW US1Q

FEATURE

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250°C /10 seconds at terminals

MECHANICAL DATA

- Case: DO-214AC/SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.07g / 0.0023oz

Absolute Maximum Ratings and Electrical characteristics

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

Parameter	Symbols	US1Q	Units
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1200	V
Maximum RMS voltage	V_{RMS}	840	V
Maximum DC Blocking Voltage	V_{DC}	1200	V
Maximum Average Forward Rectified Current at T_L =100°C	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed On Rated Load (JEDEC method)	I_{FSM}	30.0	A
Maximum Instantaneous Forward Voltage at 1.0A	V_F	1.7	V
Maximum Instantaneous Reverse Current T_A = 25°C at Rated DC Reverse Voltage T_A = 125°C	I_R	5 500	μA
Maxinum reverse recovery time(Note 1)	Trr	75	ns
Typical junction capacitance (Note2)	C_J	20.0	pF
Typical Thermal Resistance	$R_{\theta JA}$	80.0	°C/W
Operating Junction Temperature Range	Tj	-55 ~ +150	°C
Storage Temperature Range	T_{stg}	-55 ~ +150	°C

Note:1.Reverse recovery time test condition: I_F=0.5A I_R=1.0A Irr=0.25A
2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

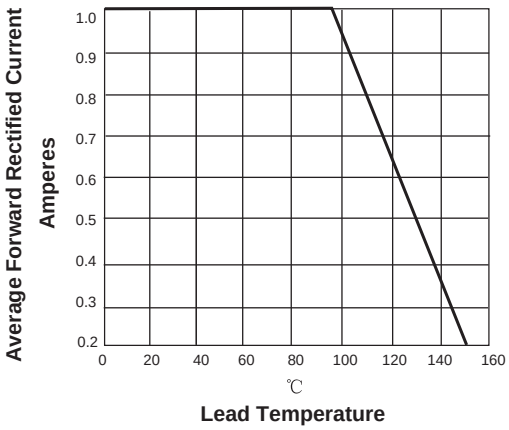


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

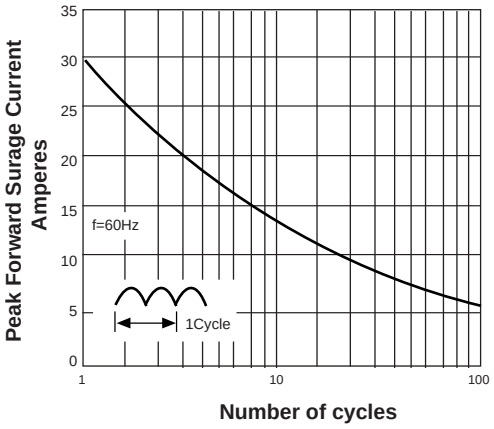


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

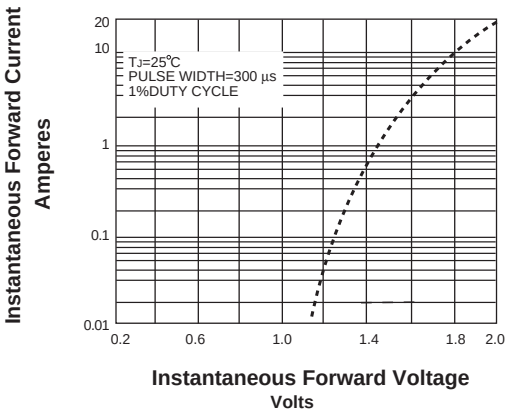
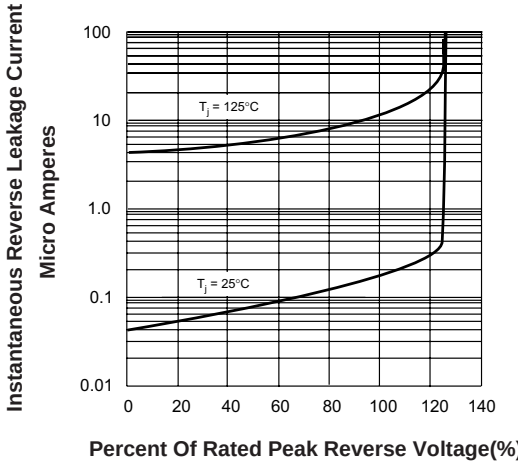


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Marking Diagram

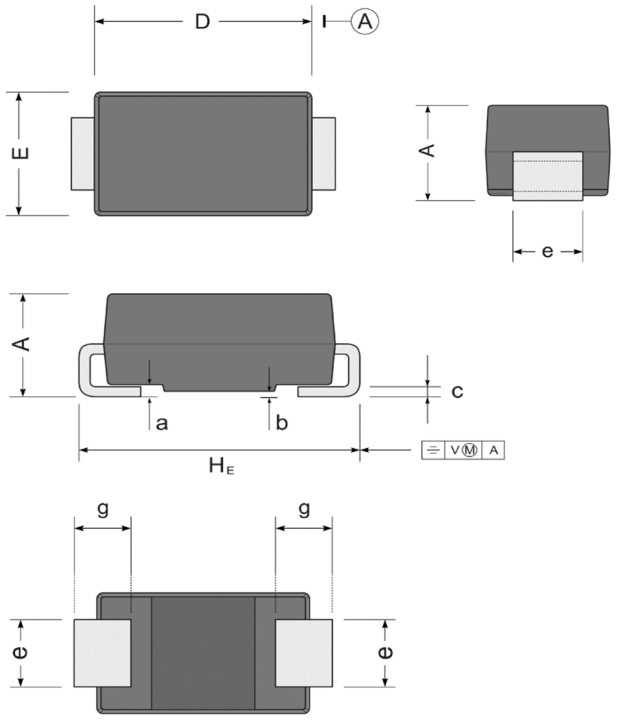


Ordering information

Package	Packing Description	Packing Quantity
DO-214AC SMA	Tape/Reel,13"reel	5000PCS/Reel 50000PCS/Carton

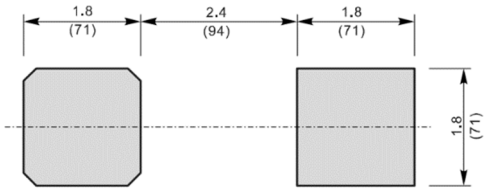
Package Dimensions

DO-214AC SMA



Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.9	2.45	75	96
D	4.0	4.5	157	181
E	2.5	2.8	100	110
H_E	4.7	5.2	185	205
c	0.15	0.31	6	12
e	1.3	1.8	51	71
g	0.9	1.5	35	59
b	0.05	0.2	2	7.9
a	0.3		12	

The recommended mounting pad size



Unit : mm (mil)

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