Elektronische Bauelemente

SCDF103~SCDF107

Voltage 200 V ~ 1000 V

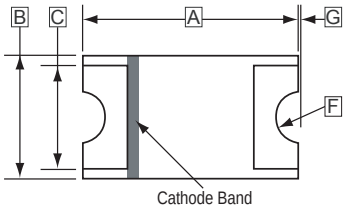
1.0 Amp Glass Passivated Fast Recovery Rectifier

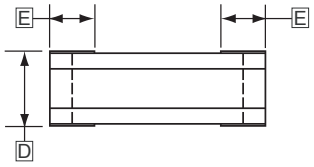
RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Lead free product, compliance to RoHS
- GPRC (Glass passivated rectifier chip) inside
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0

1206



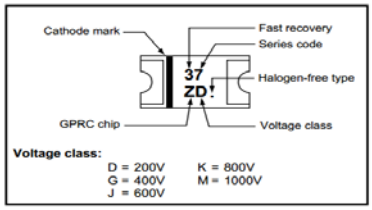


REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	3.20	3.60	E	0.50	0.90
B	1.70	2.10	F	R 0.40	
C	1.60 TYP.		G	0.05 REF.	
D	0.86	1.16			

MECHANICAL DATA

- Case : Packed with FRP substrate and epoxy underfilled
- Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.
- Weight : 0.012 gram

MARKING



PACKAGE INFORMATION

Package	MPQ	Leader Size
1206	3K	13' inch

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Rating 25°C ambient temperature unless otherwise specified. Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, de-rate current by 20%.)

Parameter		Symbol	Part Number					Unit
			SCDF103	SCDF104	SCDF105	SCDF106	SCDF107	
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	200	400	600	800	1000	V
Maximum DC Blocking Voltage		V_{DC}	200	400	600	800	1000	V
Maximum Average Forward		$I_{F(AV)}$	1					A
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load		I_{FSM}	30					A
Maximum Instantaneous Forward Voltage @ 1A		V_F	1.3					V
Maximum Repetitive peak reverse current	T_A=25°C	I_{RRM}	1					μA
	T_A=125°C		30					
Maximum Reverse Recovery Time [1]		T_{RR}	250			300		nS
Typical Thermal Resistance[3]		$R_{\theta JC}$	40					°C/W
Typical Thermal Resistance[3]		$R_{\theta JA}$	130					°C/W
Typical Thermal Resistance[3.4]		$R_{\theta JL}$	40					°C/W
Typical Junction Capacitance [2]		C_J	15					pF
Operating & Storage Temperature		T_J,T_{STG}	-50~125, -65~150					°C

Notes:

1. Reverse Recovery Time test condition : I_F=0.5A, I_R=1A, I_{RR}=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
3. Thermal resistance from junction to ambient and from junction to lead P.C.B. mounted on 0.2 x 0.2" (5.0 x 5.0mm) copper pad areas.
4. The thermal resistance in measured over the centered point of the copper pad.
5. Preliminary draft

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RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

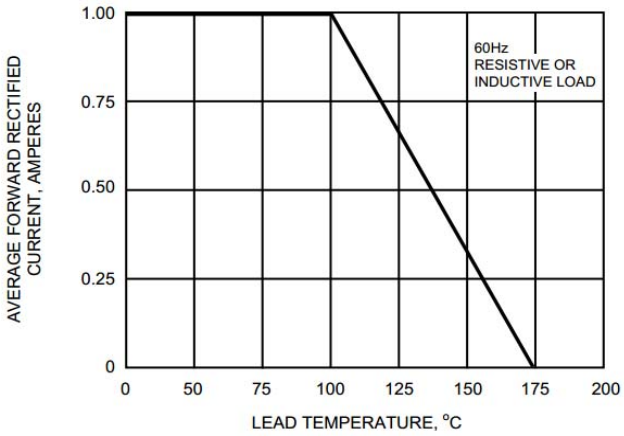

FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

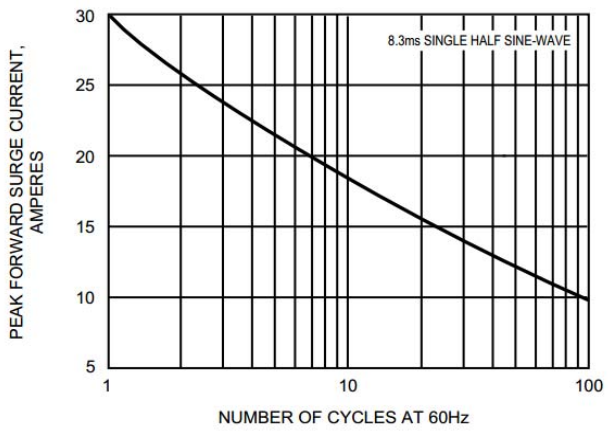

FIG.3 - TYPICAL JUNCTION CAPACITANCE

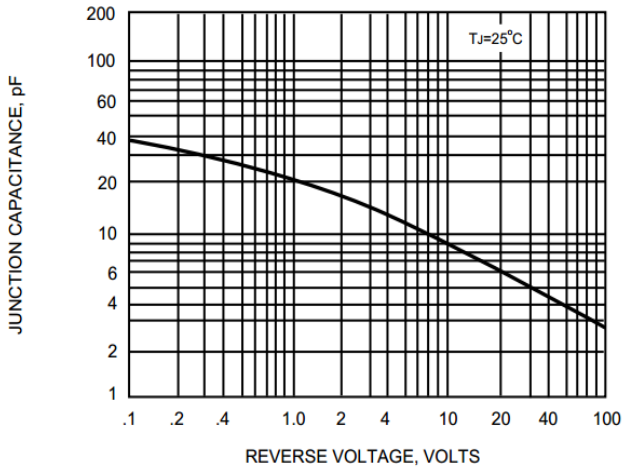

FIG.4 - NON-REPETITIVE PEAK FORWARD SURGE CURRENT SINE WAVEFORM

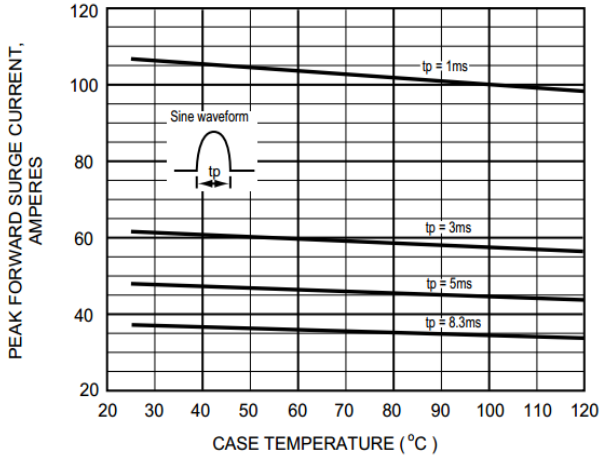

FIG.5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

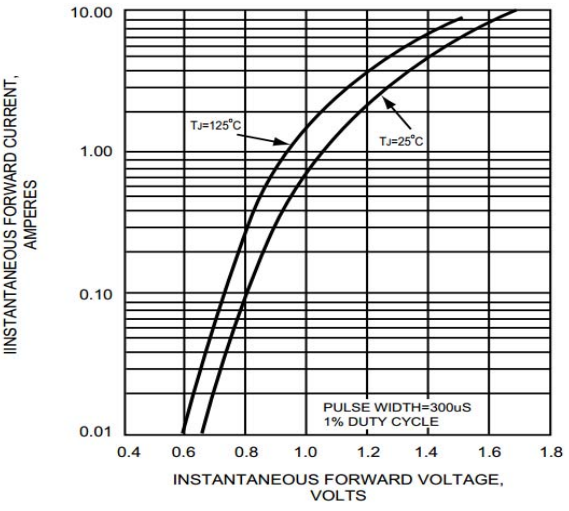

FIG.6 - TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT