Elektronische Bauelemente

SCDS101 / SCDS102 / SCDS103

Voltage 50V ~ 200V

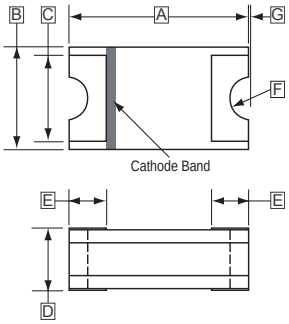
1.0 Amp Surface Mount Schottky Barrier Rectifiers

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

FEATURES

- Lead less chip form, no lead damage
- Lead-free solder joint, no wire bond & lead frame
- Low power loss, High efficiency
- 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 under filled
- Terminals : Pure Tin plated (Lead-Free), solderable per MIL-STD-750, Method 2026.
- Polarity : Laser Cathode band marking
- Weight : 0.012 gram

APPLICATION

- High frequency rectification
- AC/DC Power Supply

MARKING

Part Number	SCDS101	SCDS102	SCDS103
Marking	77ZA	77ZB	127Z

PACKAGE INFORMATION

Package	MPQ	Leader Size
1206	3K	7 inch

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter		Symbol	Part Number			Unit
			SCDS101	SCDS102	SCDS103	
Peak Repetitive Peak reverse voltage		V_{RRM}	50	100	200	V
Maximum Average Forward Current		$I_{F(AV)}$	1			A
Peak Forward Current @ 8.3 ms half sine-wave		I_{FSM}	30			A
Typical Forward Voltage	I_F=0.1 A	V_F	0.7			V
	I_F=0.5 A		0.85			
	I_F=1 A		0.94			
Maximum Repetitive Peak Reverse Current @ V_R = Max. V_{RRM}, T_A = 25 °C		I_{RRM}	1		2	μA
Reverse recovery time		T_{RR}	35			nS
Junction capacitance @ V_R=4V, f=1.0 MHz		C_J	10			pF
Typical Thermal Resistance – Junction to Ambient [1]		$R_{\theta JA}$	90			°C / W
Typical Thermal Resistance – Junction to Lead [1]		$R_{\theta JL}$	40			
Operating And Storage Temperature Range		T_J, T_{STG}	-65~175			°C

Notes:
1. Mounted on P.C. board with 0.2 x 0.2" (5.0 x 5.0 mm) copper pad areas.
2. Preliminary draft

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

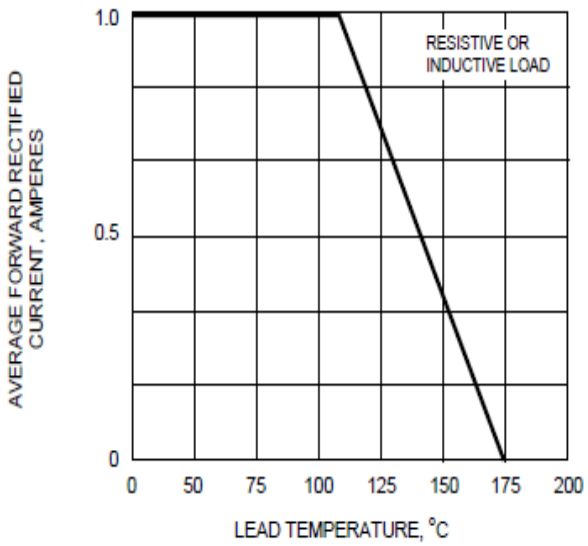


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

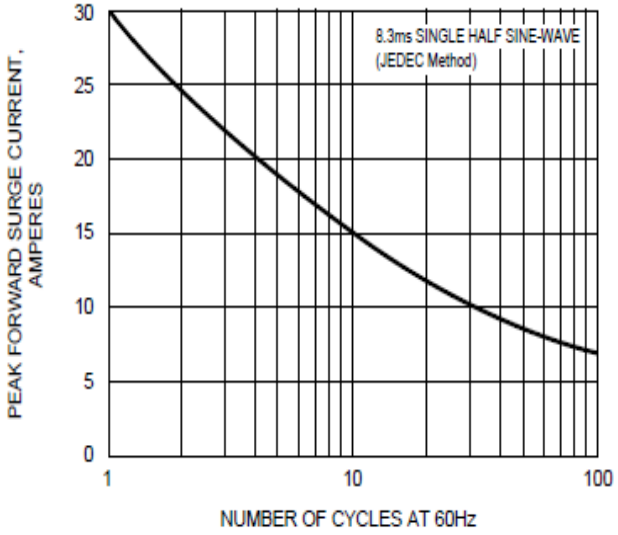


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

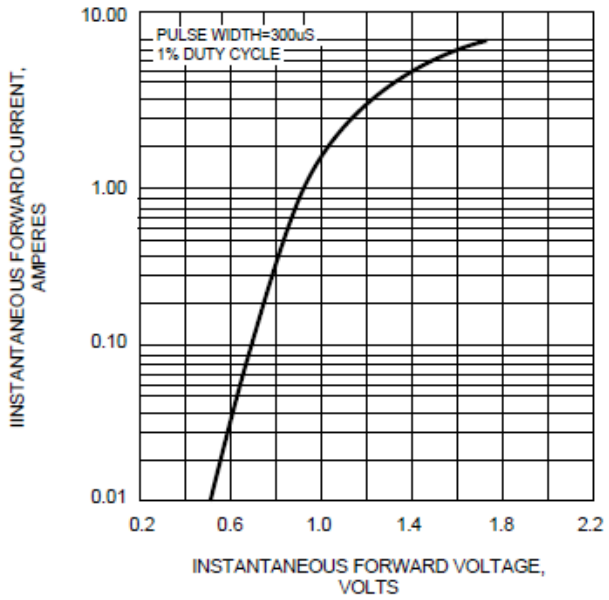


FIG 4 - TYPICAL JUNCTION CAPACITANCE