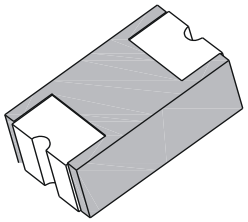
2.0A Low Profile Chip Schottky Rectifier



C1810
(SMA)

RoHS Compliant

HALOGEN FREE

Features

- Low Profile Package, Build-in Strain Relief
- Low Power Loss , High Efficiency
- High Surge Current Capability
- Super Very Low Forward Voltage
- Plastic Package has Underwriters Laboratory Flammability Classification 94V-0
- RoHS Compliant and Halogen Free

Mechanical Data

Case:	Packed with FRP substrate and epoxy underfilled
Terminals:	Pure Tin plated, solderable per MIL-STD-750, Method 2026
Polarity:	Laser cathode band marking
Weight:	0.02 gram

Application

- Switching mode power supply applications
- Portable equipment battery applications
- High frequency rectification
- DC/DC Convertor
- Telecommunication

Maximum Ratings *(T_A=25ºC unless otherwise noted)*

Symbol	Description	TSCDA22	TSCDA24	Unit	Conditions
V_{RRM}	Max. Repetitive Peak Reverse Voltage	20	40	V	
V_{RMS}	Max. RMS Voltage	14	28	V	
V_{DC}	Max. DC Blocking Voltage	20	40	V	
$I_{F(AV)}$	Average Forward Rectified Current	2.0		A	See Fig.1
I_{FSM}	Peak Forward Surge Current	50		A	8.3ms single half sine-wave
T_J	Operating Junction Temperature Range	-55 to +125		° C	
T_{STG}	Storage Temperature Range	-55 to +150		° C	

Electrical Characteristics *(T Ambient=25ºC unless noted otherwise)*

Symbol	Description	Typ.	Max.	Unit	Conditions
V_F	Max. Instantaneous Forward Voltage (Note 1)	0.41	-	V	I_F=1.0A
		0.49	0.50	V	I_F=2.0A
I_R	Max. DC Reverse Current at Rated DC Blocking Voltage	0.025	0.20	mA	V_R=Max V_{RRM}
C_J	Typical Junction Capacitance	115	-	pF	V_R=4V, f=1MHz
$R_{\theta-JA}$	Thermal Resistance Junction to Ambient (Note 2)	75	-	° C/W	
$R_{\theta-JL}$	Thermal Resistance Junction to Lead (Note 2)	17	-	° C/W	

Note: 1. Pulse Test with PW = 300 µsec, 1% Duty Cycle.
2. P.C.B. mounted with 5.0 x 5.0mm (0.2 x 0.2") copper pad areas.

Typical Characteristics Curves

Fig.1- Forward Current Derating Curve

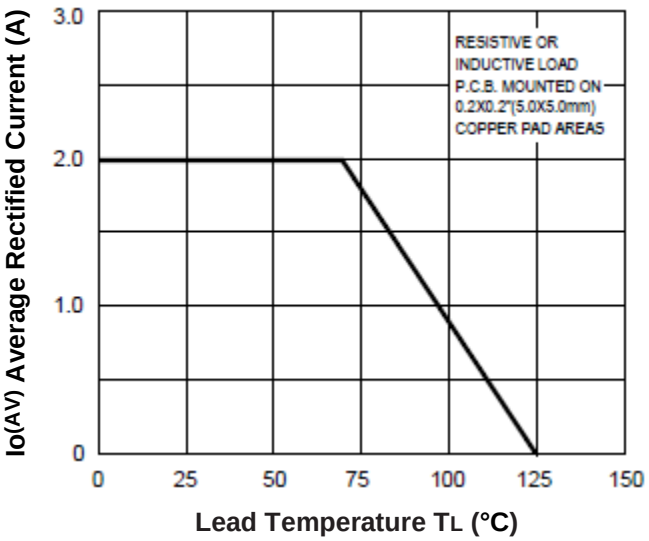


Fig.2-Max. Non-Repetitive Forward Surge Current

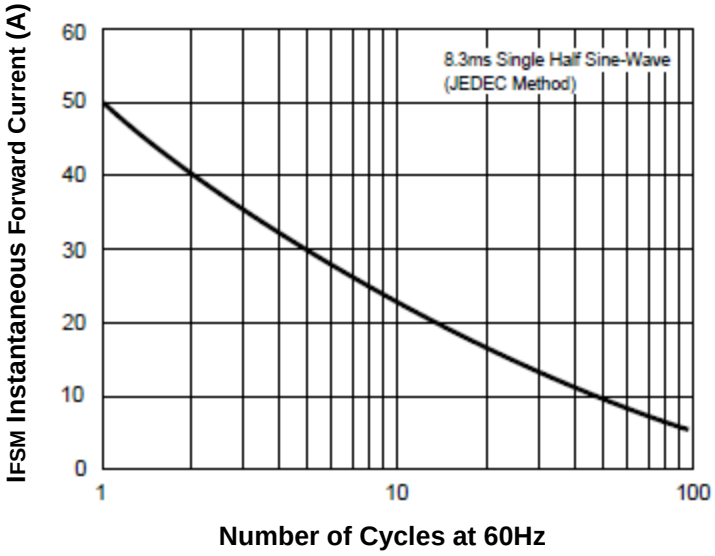


Fig.3- Typical Forward Characteristics

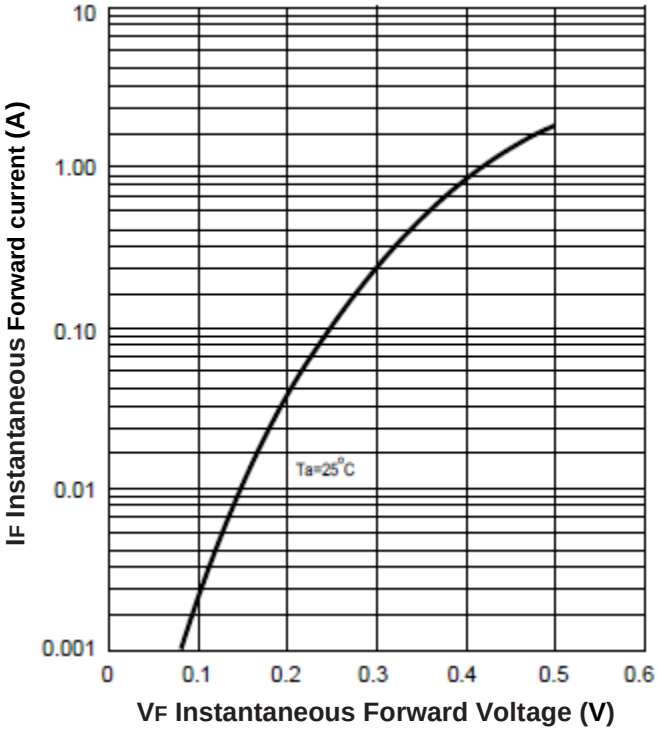


Fig.4- Typical Reverse Characteristics

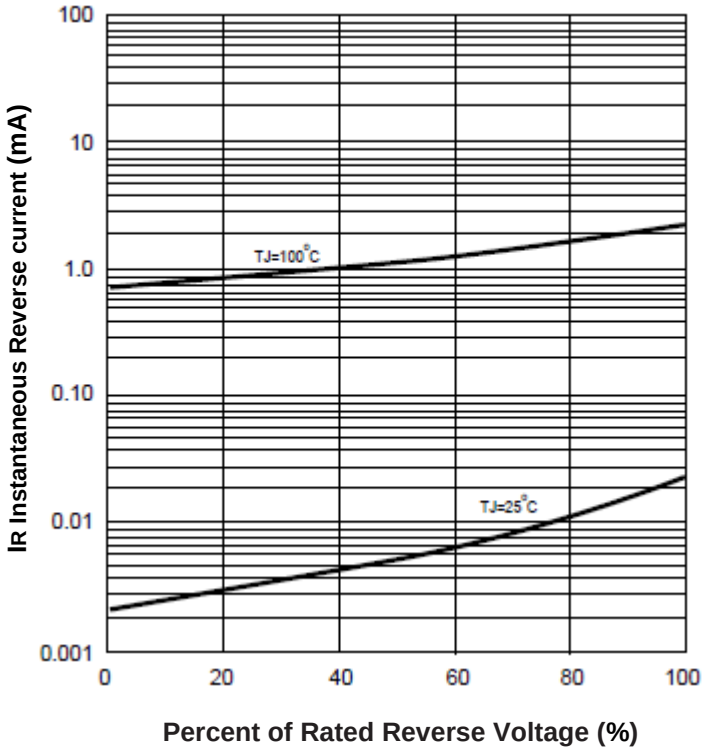
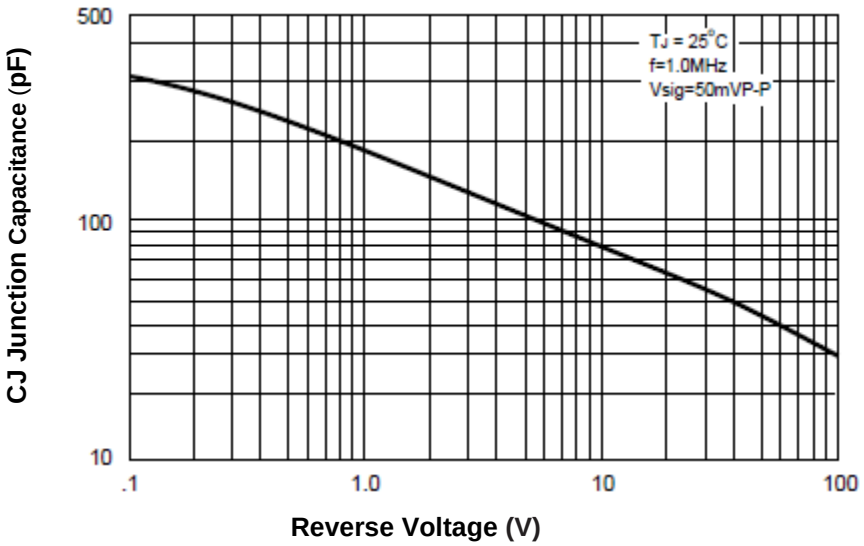
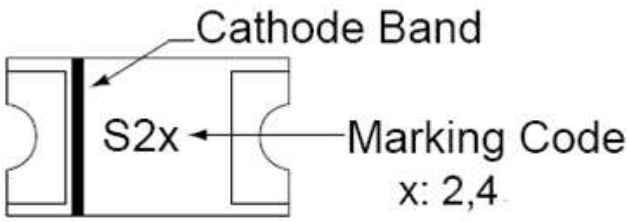


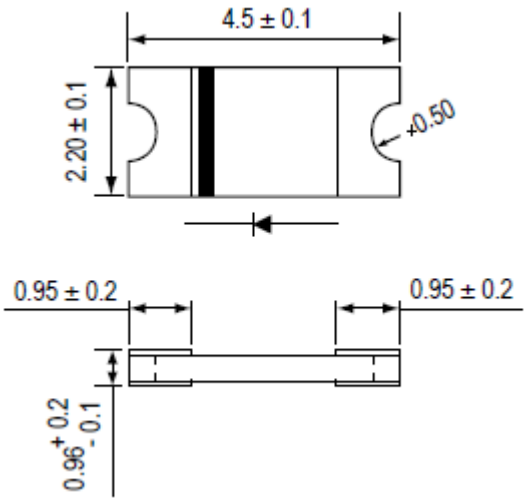
Fig.5- Typical Junction Capacitance



Marking Information:



Dimensions in inch (mm)



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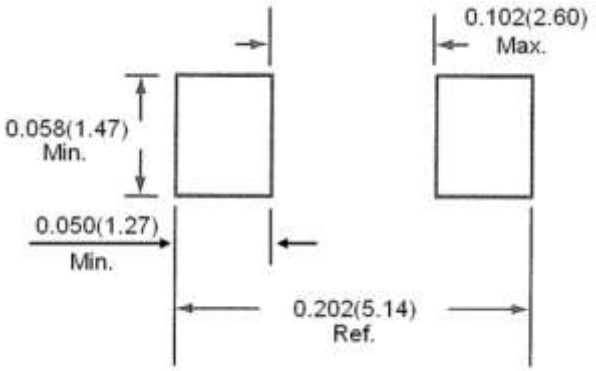
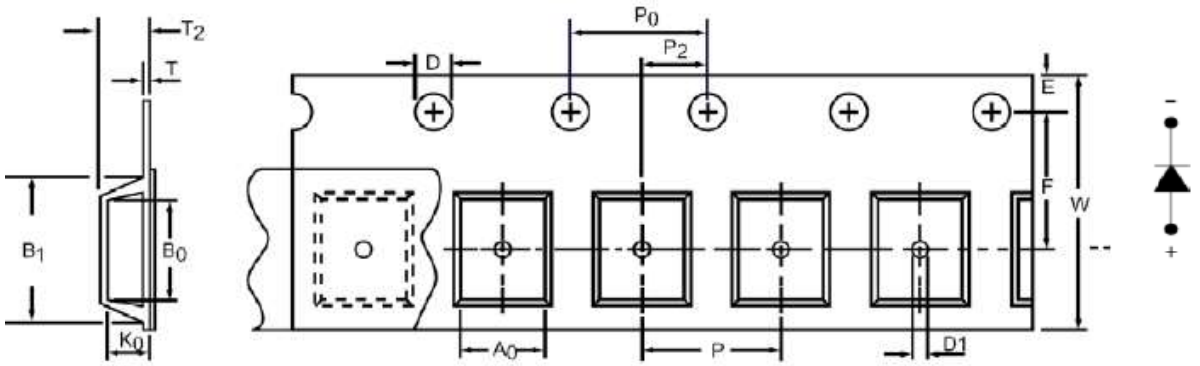
Mounting Pad Layout in inch (mm)



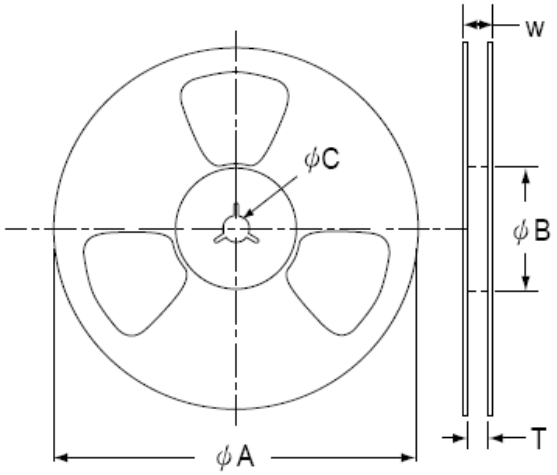
Packing Information in mm



Product Type	A0	B0	K0	D	E	P0	T
	See Note			1.5±0.1	1.75±0.10	4.0±0.1	0.4max.
C1810	P2	B1	D1	F	P	W	T2
	2.0±0.1	8.2max.	1.50min.	5.50±0.05	4.0±0.1	12.0±0.3	1.51±0.10

Note: Symbol A0, B0, K0 are determined by the maximum dimensions of the component size. The clearance between the component and the cavity must be within 0.05 mm (0.002'') min. to 0.65 mm (0.026'') max. for 12 mm tape.

Reel Dimensions in mm



ΦA	ΦB	ΦC	W	T
178±2.0	50min.	13.0±0.5	18.7max.	14.4max.

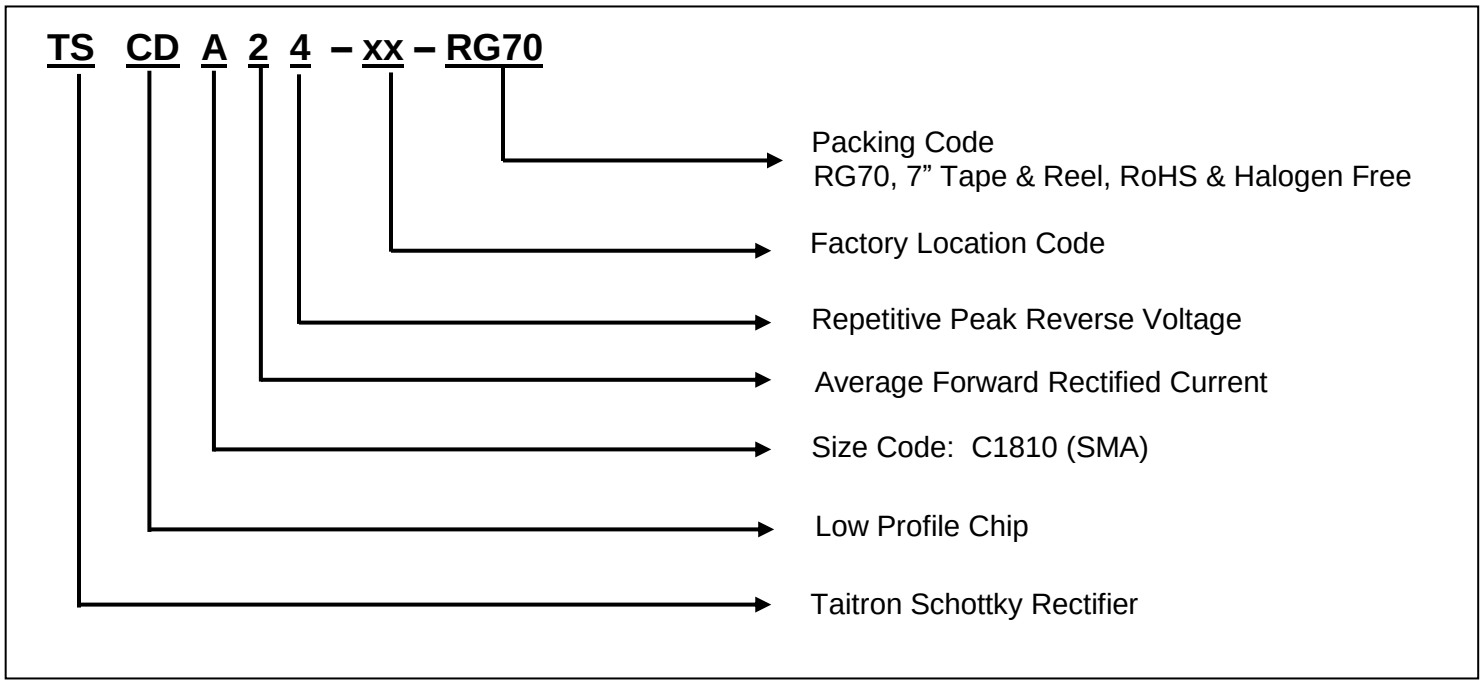
Packing Quantity Information:

Quantity	PCS per Reel	PCS per Box	PCS per Carton
-RG70 Tape & Reel	3,000	12,000	72,000

Carton Size Information:

-RG70 Tape & Reel
400X207X240 (in mm)

How to Order



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