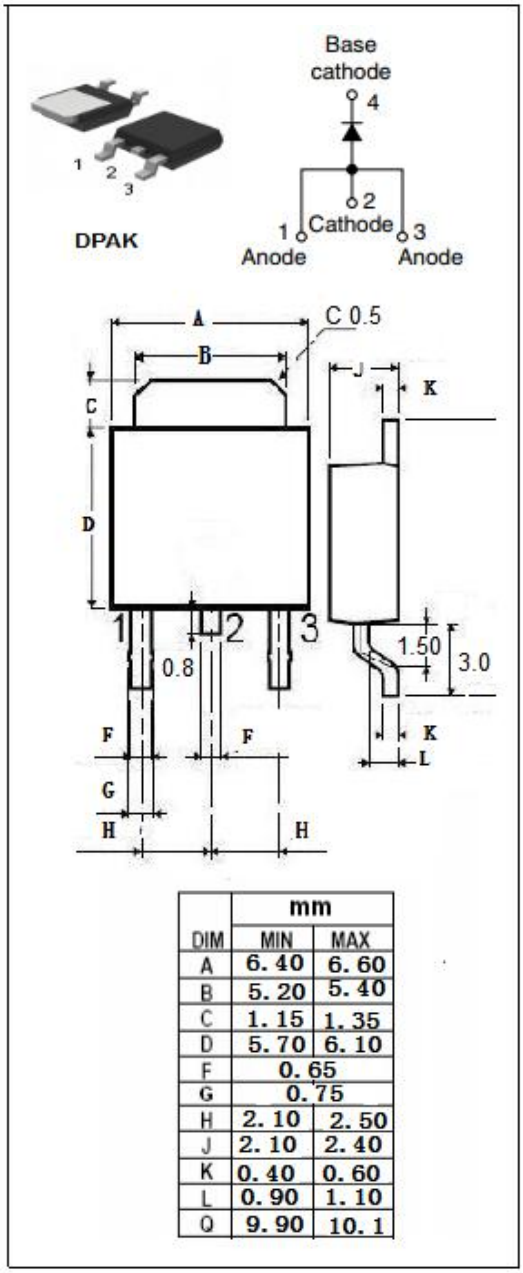
Schottky Barrier Rectifier — SDT20B100D1

FEATURES

- Low Forward Voltage
- High Operating Junction Temperature
- Extremely low reverse leakage
- Optimized VF vs. IR trade off for high efficiency
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- High frequency switching
- High efficiency SMPS
- Automotive



DIM	mm MIN	MAX
A	6.40	6.60
B	5.20	5.40
C	1.15	1.35
D	5.70	6.10
F	0.65	
G	0.75	
H	2.10	2.50
J	2.10	2.40
K	0.40	0.60
L	0.90	1.10
Q	9.90	10.1

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_R	Peak Repetitive Reverse Voltage DC Blocking Voltage	100	V
$I_{F(AV)}$	Average Rectified Forward Current (Rated V_R) T_C= 135℃	20	A
I_{FSM}	Non-repetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	100	A
T_J	Junction Temperature	-55~175	℃
T_{stg}	Storage Temperature Range	-55~175	℃

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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	2.5	℃/W

ELECTRICAL CHARACTERISTICS (Pulse Test: Pulse Width=300us,Duty Cycle≤2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 5A ; T_C= 25℃	0.57	V
		I_F= 5A ; T_C= 125℃	0.50	
		I_F= 10A ; T_C= 25℃	0.66	
		I_F= 10A ; T_C= 125℃	0.82	
		I_F= 20A ; T_C= 25℃	0.82	
		I_F= 20A ; T_C= 125℃	0.75	
I_R	Maximum Instantaneous Reverse Current	Vr=100V;Tj=25℃ Vr=100V;Tj=125℃	0.1 16	mA