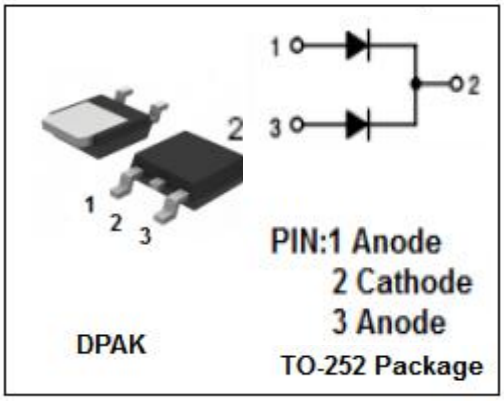
Schottky Barrier Rectifier — MBR10150CS

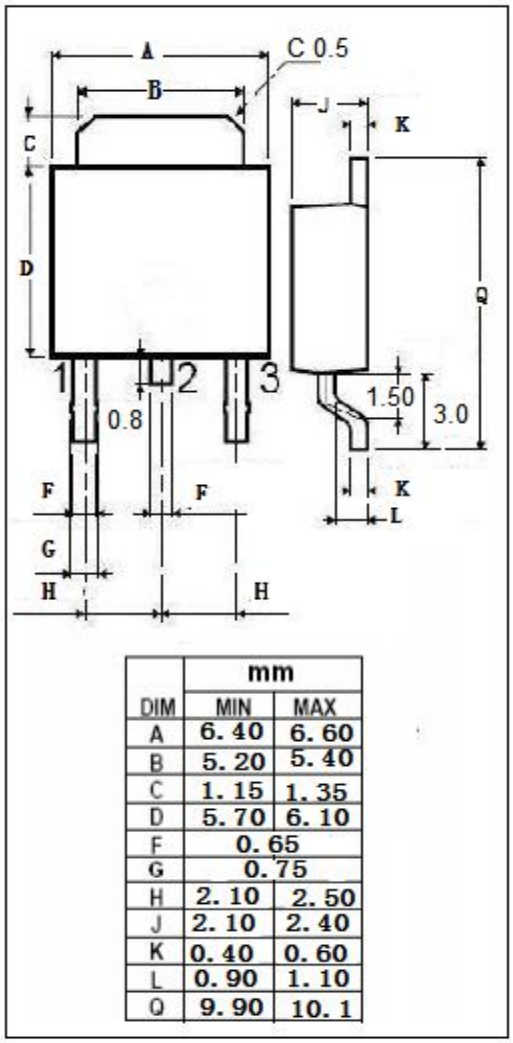
FEATURES

- With TO-252(DPAK) packaging
- Low power loss
- High efficiency
- High frequency operation
- High surge capacity
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Switching power supply
- High frequency inverters
- Freewheeling diodes
- Reverse battery protection
- Polarity protection applications



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(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{RRM} V_{RMS} V_R	Peak Repetitive Reverse Voltage RMS Voltage DC Blocking Voltage	150	V
$I_{F(AV)}$	Average Rectified Forward Current @Tc=142℃	5	A
$I_{F(RMS)}$	Forward rms current@Tc=142℃	10	A
I_{FSM}	Nonrepetitive Peak Surge Current (10ms single half sine-wave superimposed on rated load conditions,60Hz)	100	A
T_J	Junction Temperature	-65~150	℃
T_{stg}	Storage Temperature Range	-65~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	3.0	℃/W

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

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_F	Maximum Instantaneous Forward Voltage	I_F= 5A ;Tc= 25℃	0.92	V
		I_F= 5A ;Tc= 125℃	0.82	
I_R	Maximum Instantaneous Reverse Current	V_R= rated V_{RRM}; Tc= 25℃	0.1	mA
		V_R= rated V_{RRM}; Tc= 125℃	15	