

Ultrafast Rectifier
VS-60APU04PBF
FEATURES

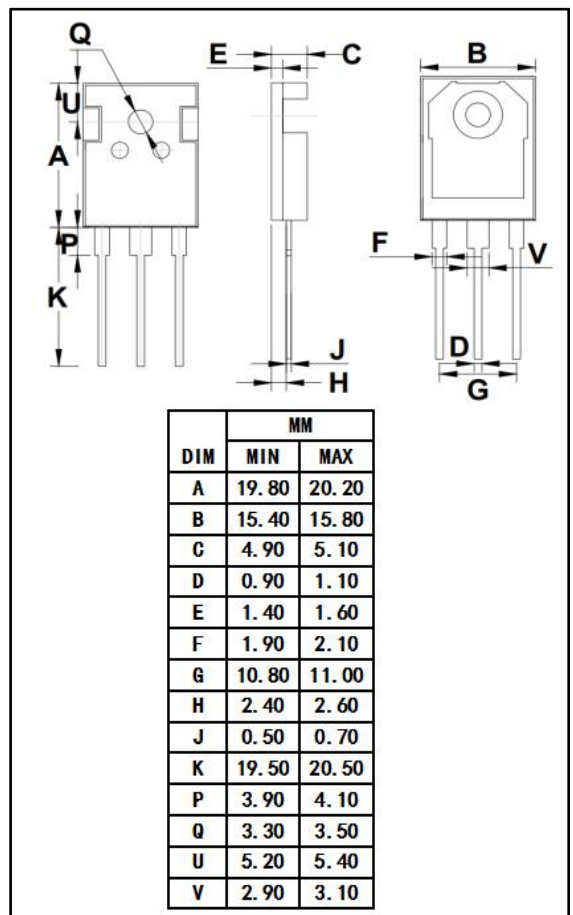
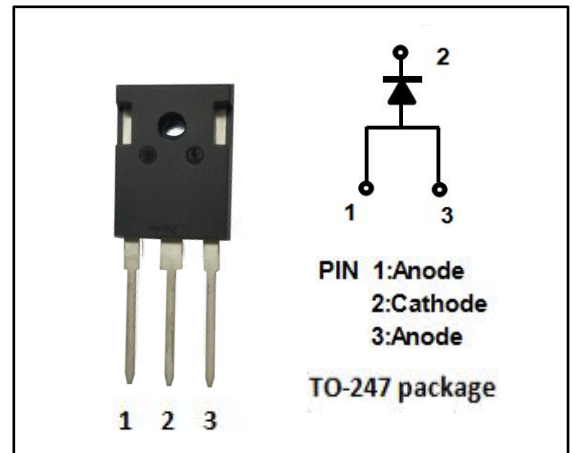
- Ultrafast with soft recovery
- Low forward voltage drop
- 175°C operating junction temperature
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Switching power supply
- Power switching circuits
- Higher frequency operation

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{RRM} V _{RWM} V _R	Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	400	V
I _{F(AV)}	Average Rectified Forward Current	60	A
I _{FSM}	Nonrepetitive Peak Surge Current (Surge applied at rated load conditions half-wave, single phase, 60Hz)	600	A
P _D	Maximum power dissipation	215	W
T _J	Junction Temperature	-55~175	°C
T _{stg}	Storage Temperature Range	-55~175	°C



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THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th,j-c}$	Thermal Resistance, Junction to Case	0.70	°C/W

ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$) (Pulse Test: Pulse Width=300 μ s, Duty Cycle \leq 2%)

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{F^*}	Maximum Instantaneous Forward Voltage	$I_F=60\text{A}; T_j=25^{\circ}\text{C}$	1.25	V
I_R	Maximum Instantaneous Reverse Current	$V_R=V_{RWM};$ $V_R=V_{RWM}; T_j=150^{\circ}\text{C}$	$\frac{0.05}{2}$	mA
t_{rr}	Maximum Reverse Recovery Time	$I_F = 1\text{A}; di/dt = 200\text{A}/\mu\text{s}$	60	ns

*:Pulse test ,Pulse width=300us,duty cycle \leq 2%

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