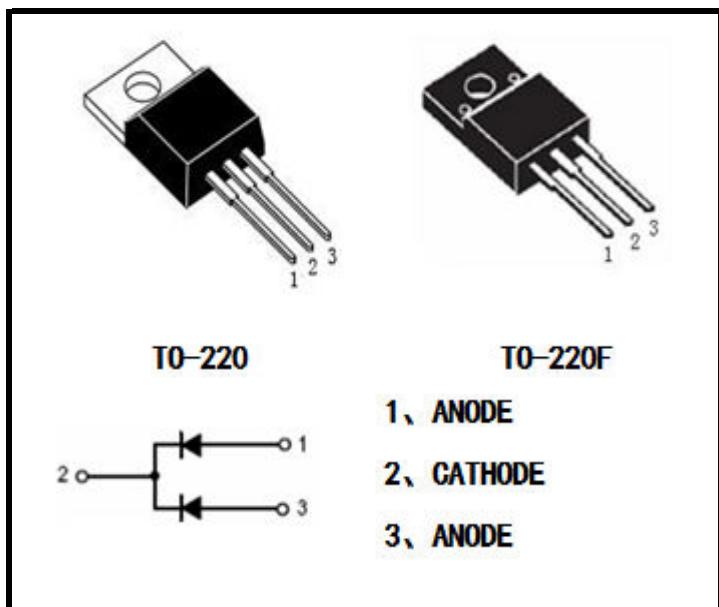


## Ultra Low VF=0.27V at IF=5A

### ■ FEATURES

- \* Schottky Barrier Chip
- \* Guard Ring Die Construction for Transient Protection
- \* Low Power Loss, High Efficiency
- \* High Surge Capability
- \* High Current Capability and Low Forward Voltage Drop
- \* For Use in Low Voltage, High Frequency Inverters, Free Wheeling, and Polarity Protection Applications

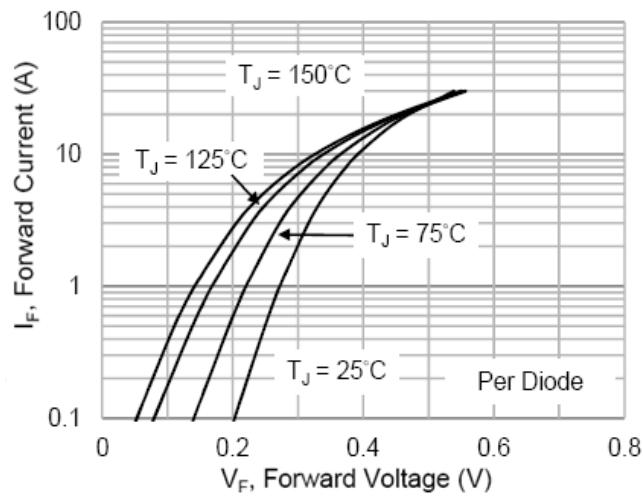
### ■ PACKAGE



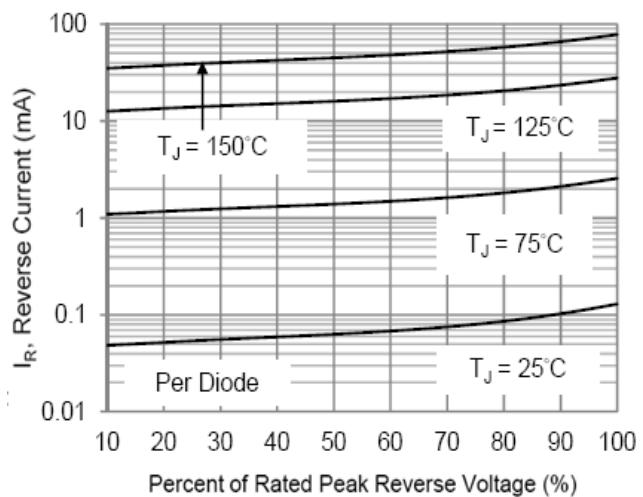
### ■ ELECTRICAL CHARACTERISTICS (T<sub>amb</sub>=25°C)

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	45	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
Average Rectified Output Current	I <sub>F(per leg)</sub>	20	A
	I <sub>F(Total)</sub>	40	
Non-Repetitive Peak Surge Current (Surge applied at rated load conditions halfwave, single phase, 60Hz)	I <sub>FSM</sub>	400	A
Instantaneous Forward Voltage @IF=5A, TC=25°C @IF=20A, TC=25°C @IF=5A, TC=125°C @IF=20A, TC=125°C	V <sub>F</sub>	TYP. 0.36	V
		0.49	
		0.27	
		0.4	
Peak Reverse Current @Tc=25 °C at Rated DC Blocking Voltage @Tc=125°C	I <sub>R</sub>	0.3 100	mA
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C
Maximum Thermal Resistance	θ <sub>JC</sub>	T0-220	2
		T0-220F	4
	θ <sub>JA</sub>	T0-220	60
		T0-220F	60

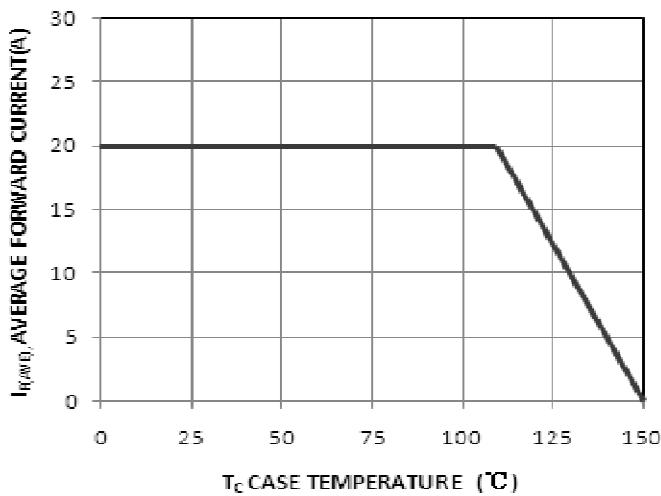
## ■ Characteristics Curves



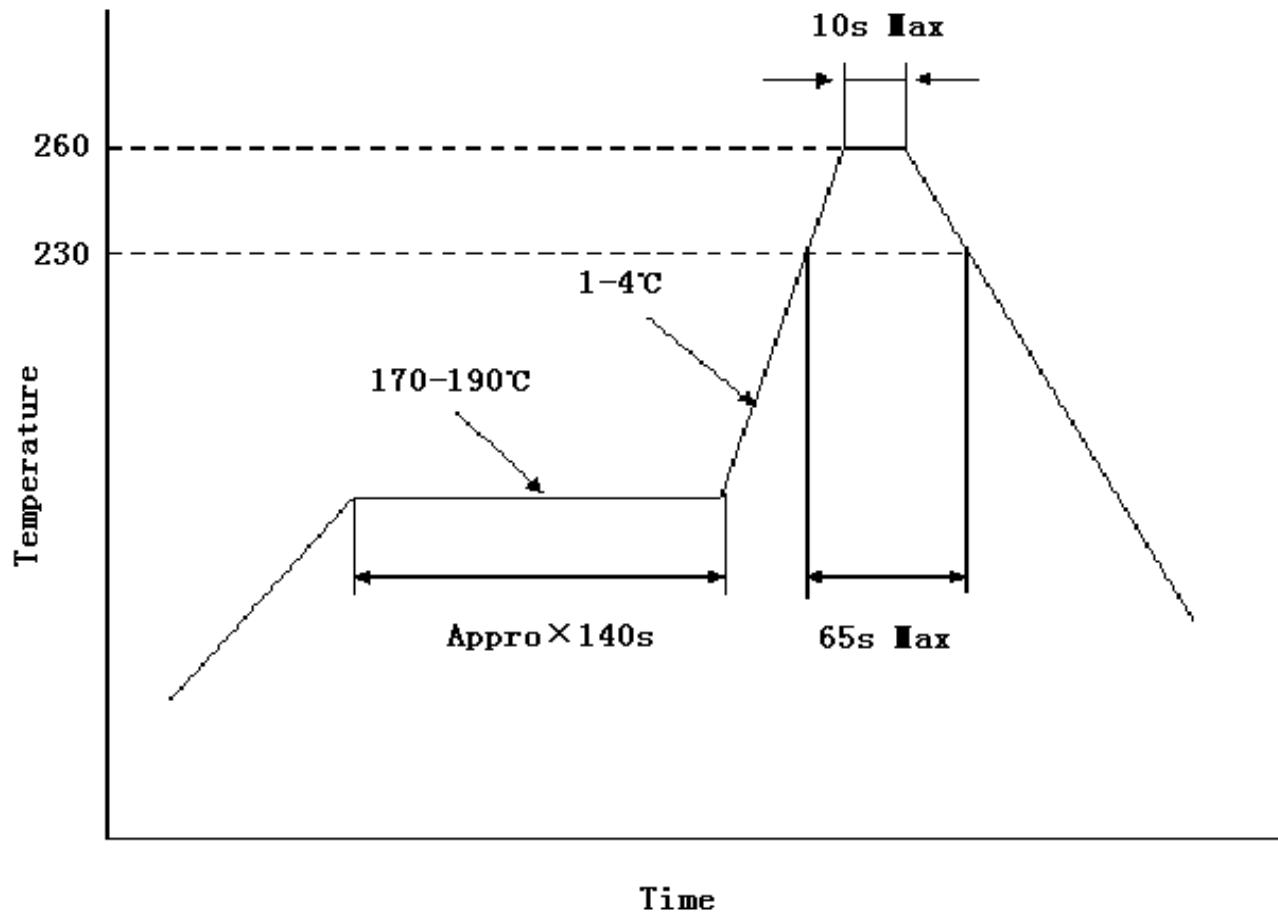
**Typical Forward Voltage Per Diode**



**Typical Reverse Current Per Diode**



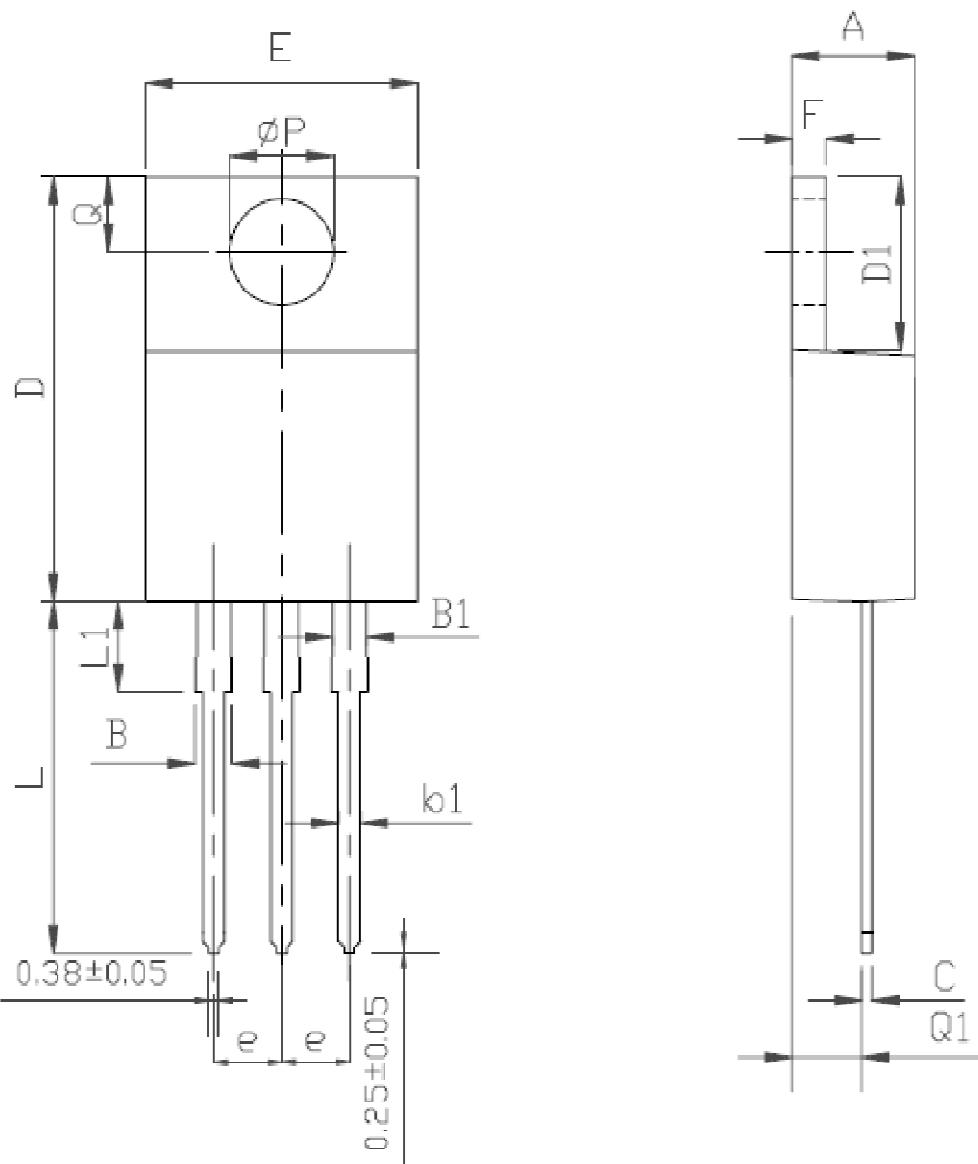
**Average Forward Forward Current vs.  
Case Temperature Per Diode**

**Reflow Soldering Temperature Profile**

## TO-220 MECHANICAL DATA

UNIT: mm

SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX
A	4		4.8	e	2.44	2.54	2.64
B	1.2		1.4	F	1.1		1.4
B1	1		1.4	L	12.5		14.5
b1	0.75		0.95	L1	3	3.5	4
c	0.4		0.55	ΦP	3.7	3.8	3.9
D	15		16.5	Q	2.5		3
D1	5.9		6.9	Q1	2		2.9
E	9.9		10.7				



## TO-220F MECHANICAL DATA

UNIT: mm

SYMBOL	MIN	NOM	MAX	SYMBOL	MIN	NOM	MAX
A	4.5		4.9	E1	6.5	7	7.5
A1	2.3		2.9	e	2.44	2.54	2.64
b	0.65		0.9	L	12.5		14.3
b1	1.1		1.7	L1	9.45		10.05
b2	1.2		1.4	L2	15		16
c	0.35		0.65	L3	3.2		4.4
D	14.5		16.5	ΦP	3		3.3
D1	6.1		6.9	Q	2.5		2.9
E	9.6		10.3				

