

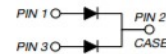
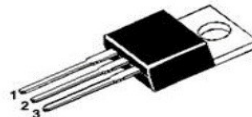
FEATURES AND BENEFITS

- Low power loss, high efficiency operation
- Low forward voltage drop
- Fast switching capability
- High forward surge capability
- Excellent High Temperature Stability

MECHANICAL DATA

- Epoxy : UL94 V-0 rated flame retardant
- Case: TO-220AB Package
- Terminals: Matte Tin annealed over copper
- Weight: Approximated 2.03 grams

Primary Characteristic	
I_O	2X30A
V_{RRM}	100V
I_{FSM}	275A
V_F Typical=5A, $T_J=125^\circ$	0.36V
T_{Jmax}	175°C



Maximum Ratings ($T_a=25^\circ\text{C}$ unless otherwise specified)			
Characteristics	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	100	V
Working Peak Reverse Voltage	V_{RWM}	100	V
DC Blocking Voltage	V_{DC}	100	V
RMS Reverse Voltage	V_{RMS}	70	V
Average Forward Rectified Current (per diode)	I_O	30	Amps
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	275	Amps

Electrical Characteristics ($T_a=25^\circ\text{C}$ unless otherwise specified)						
Characteristics			Symbol	Typ.	Max.	Unit
Forward Voltage Drop ¹⁾	IF=5A	$T_a=25^\circ\text{C}$	V_F	0.46	0.50	V
	IF=30A	$T_a=25^\circ\text{C}$	V_F	0.72	0.76	V
	IF=5A	$T_a=125^\circ\text{C}$	V_F	0.36	0.40	V
	IF=30A	$T_a=125^\circ\text{C}$	V_F	0.68	0.72	V
Reverse Current ²⁾	VR=100V	$T_a=25^\circ\text{C}$	I_R	20	60	μA
	VR=100V	$T_a=125^\circ\text{C}$	I_R	15	45	mA

THERMAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)				
Characteristics		Symbol	Value	Unit
Typical Thermal Resistance, junction to case	TO-220AB	$R_{\theta JC}$	2.8	°C/W
Typical Thermal Resistance, junction to case	ITO-220AB	$R_{\theta JC}$	4.0	
Operating Temperature Range (in DC Mode)		T_J	-65 to +175	°C
Storage Temperature Range		T_{STG}	-65 to +150	°C

Notes (1): Pulse test: 300 μs pulse width, 1% duty cycle.

Notes (2): Pulse width $\leq 40\text{ms}$

Notes (3): FR-4 PCB, 2oz copper. Minimum recommended pad layout

RATINGS AND CHARACTERISTICS CURVES

Fig 1. Typical Forward Characteristics

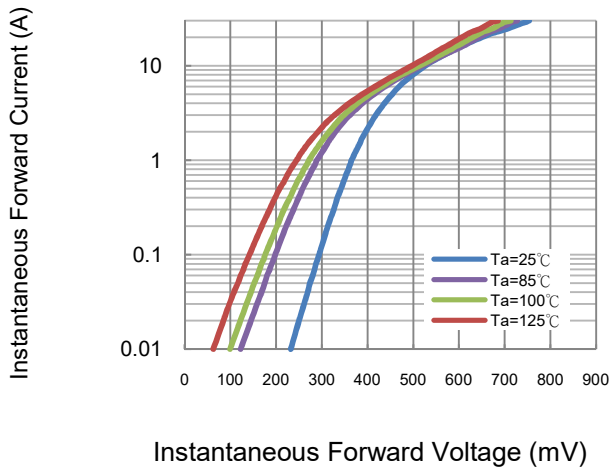


Fig 2. Typical Reverse Characteristics

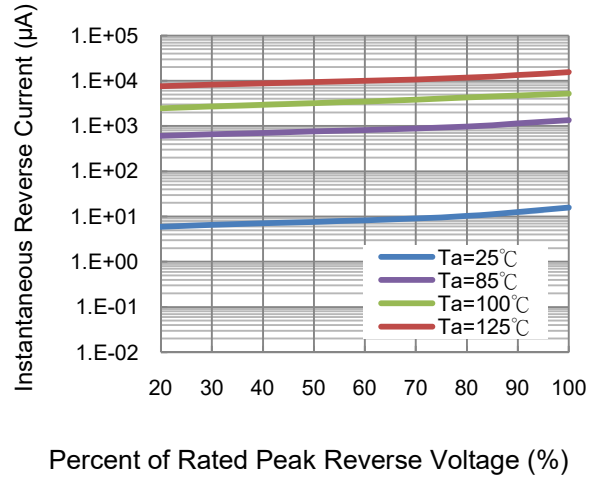


Fig 3. Typical Forward Current Derating Curve

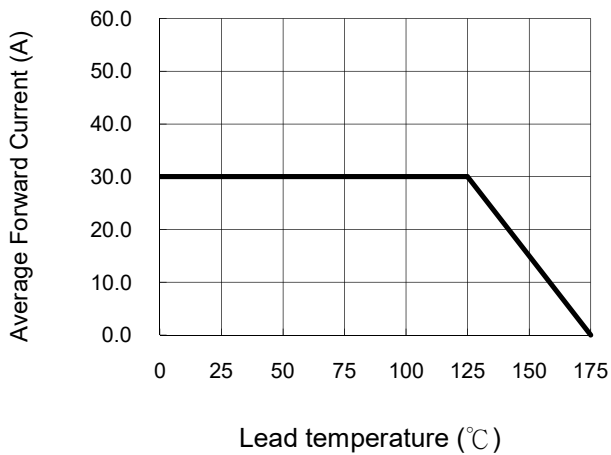
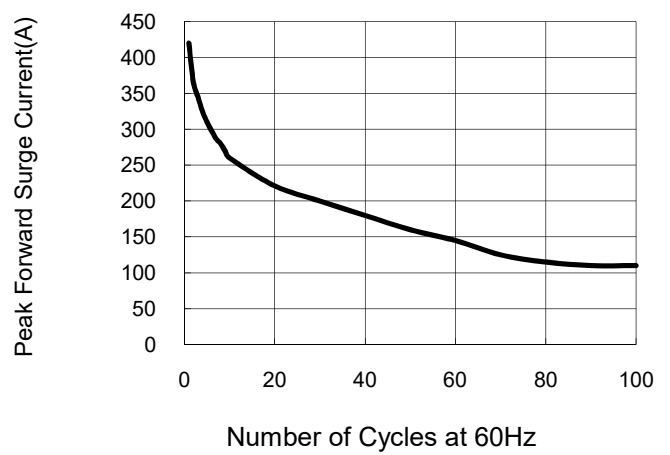


Fig 4. Non-repetitive Forward Surge Current



Package Outline Dimensions (in millimeters)

