

8Amp. Super fast Plastic Rectifiers

MSR0860AF2

$I_{F(AV)}$	8A
V_{RRM}	600V
I_{FSM}	125A
trr	25ns
T_j	175°C
$V_{F(MAX)}$	2V

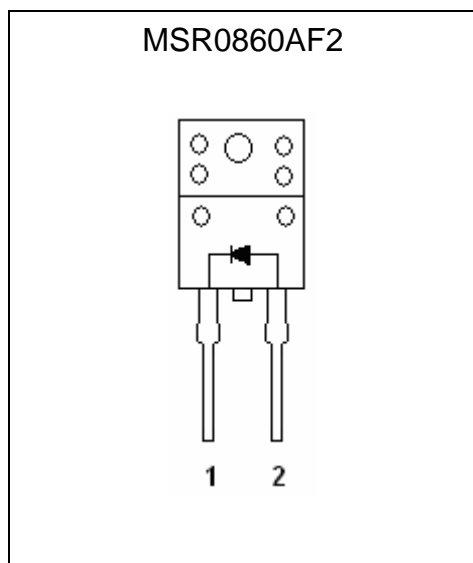
Features

- 175°C operating junction temperature
- Low leakage current
- Low switching loss, high efficiency
- High forward surge capability
- Insulating package, insulating voltage=2500V AC
- High temperature soldering guaranteed : 260°C/40s, 0.25”(6.35mm) from case
- Pb-free lead plating package

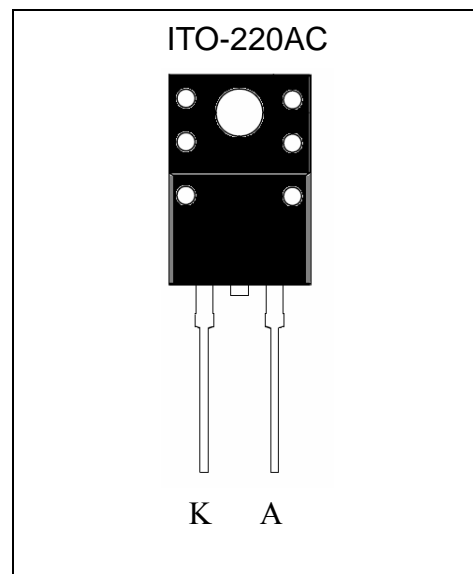
Mechanical Data

- Case: ITO-220AC molded plastic
- Mounting Position: Any
- Weight: 1.85 grams, 0.065 ounce approximately
- Terminals: Pure tin plated, solderable per J-STD-002 and JESD22-B102
- Epoxy: UL 94V-0 rate flame retardant
- Mounting torque: 10 in.-lb. maximum

Equivalent Circuit



Outline



**Maximum Ratings and Electrical Characteristics**

(Rating at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.)

Parameter	Symbol	Min.	Typ.	Max.	Units
Maximum Recurrent peak reverse voltage	V_{RRM}			600	V
Maximum RMS voltage	V_{RMS}			420	V
Maximum DC blocking voltage	V_{DC}			600	V
Maximum instantaneous forward voltage at $I_F=8A$	V_F		1.8	2	V
Maximum Average forward rectified current @ $T_C=100^\circ C$	$I_{F(AV)}$			8	A
Non-repetitive peak forward surge current @ 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I_{FSM}			125	A
Maximum instantaneous reverse current at	I_R	$V_R=600V, T_C=25^\circ C$		0.025	mA
		$V_R=600V, T_C=125^\circ C$		5	
Maximum reverse recovery time	t_{rr}	$I_F=1A, V_R=30V, dI_F/dt=100A/\mu s$	16	25	ns
Typical junction capacitance @ $f=1MHz$ and applied 4V reverse voltage	C_J		23		pF
Isolation voltage from terminal to heatsink, $t=1$ minute	V_{AC}	2500			V
Storage temperature range	T_{stg}	-65		+175	$^\circ C$
Operating junction temperature range	T_J	-65		+175	$^\circ C$

Thermal Data

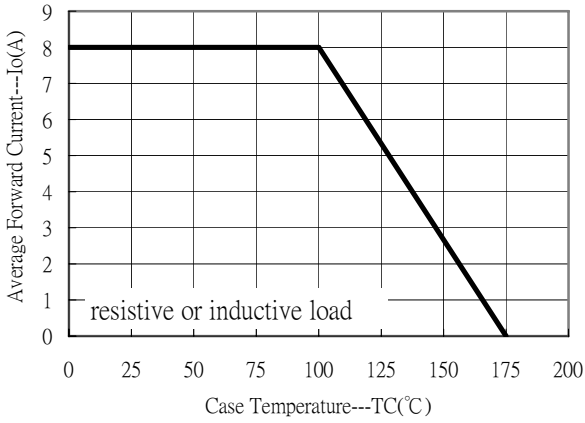
Parameter	Symbol	Value	Unit
Maximum Thermal Resistance, Junction-to-case	$R_{th,j-c}$	5	$^\circ C/W$
Maximum Thermal Resistance, Junction-to-ambient	$R_{th,j-a}$	60	$^\circ C/W$

Ordering Information

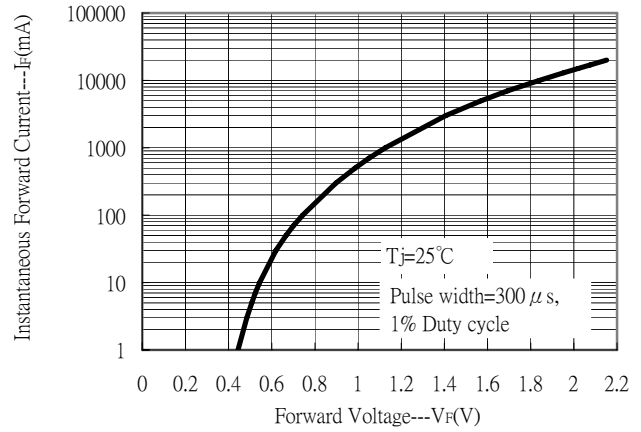
Device	Package	Shipping
MSR0860AF2	ITO-220AC (RoHS compliant package)	50 pcs / Tube, 40 Tubes/Box

Characteristic Curves

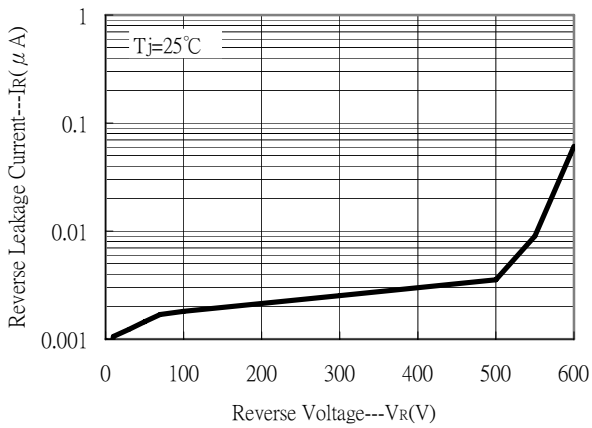
Forward Current Derating Curve



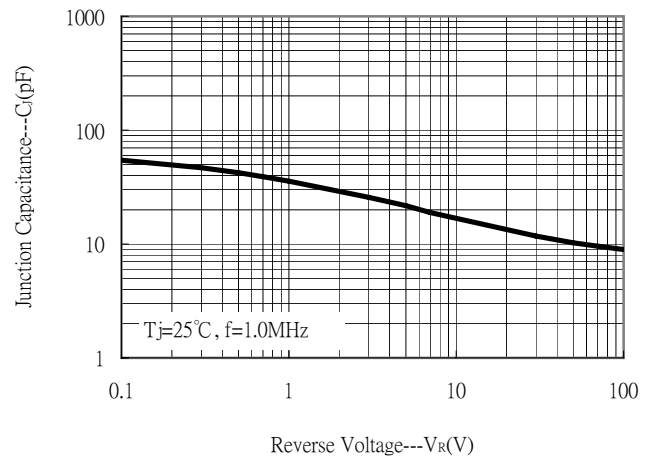
Forward Current vs Forward Voltage



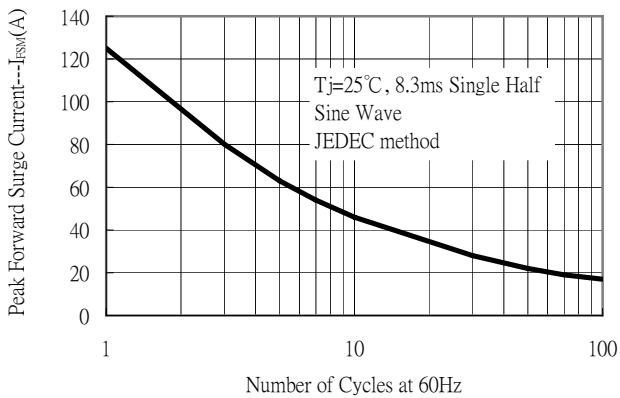
Reverse Leakage Current vs Reverse Voltage



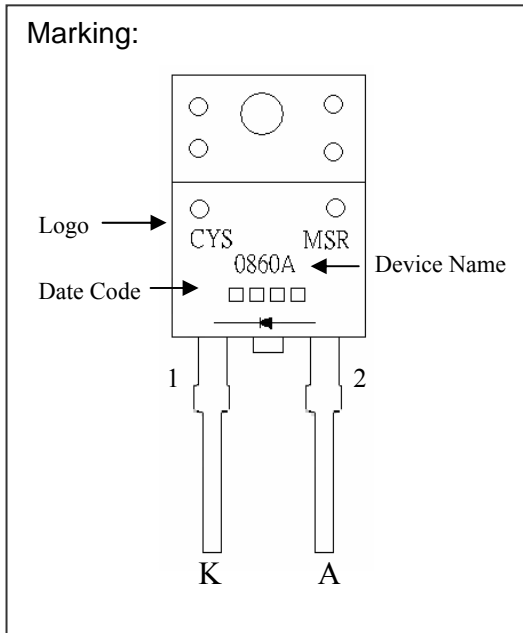
Junction Capacitance vs Reverse Voltage



Maximum Non-Repetitive Forward Surge Current

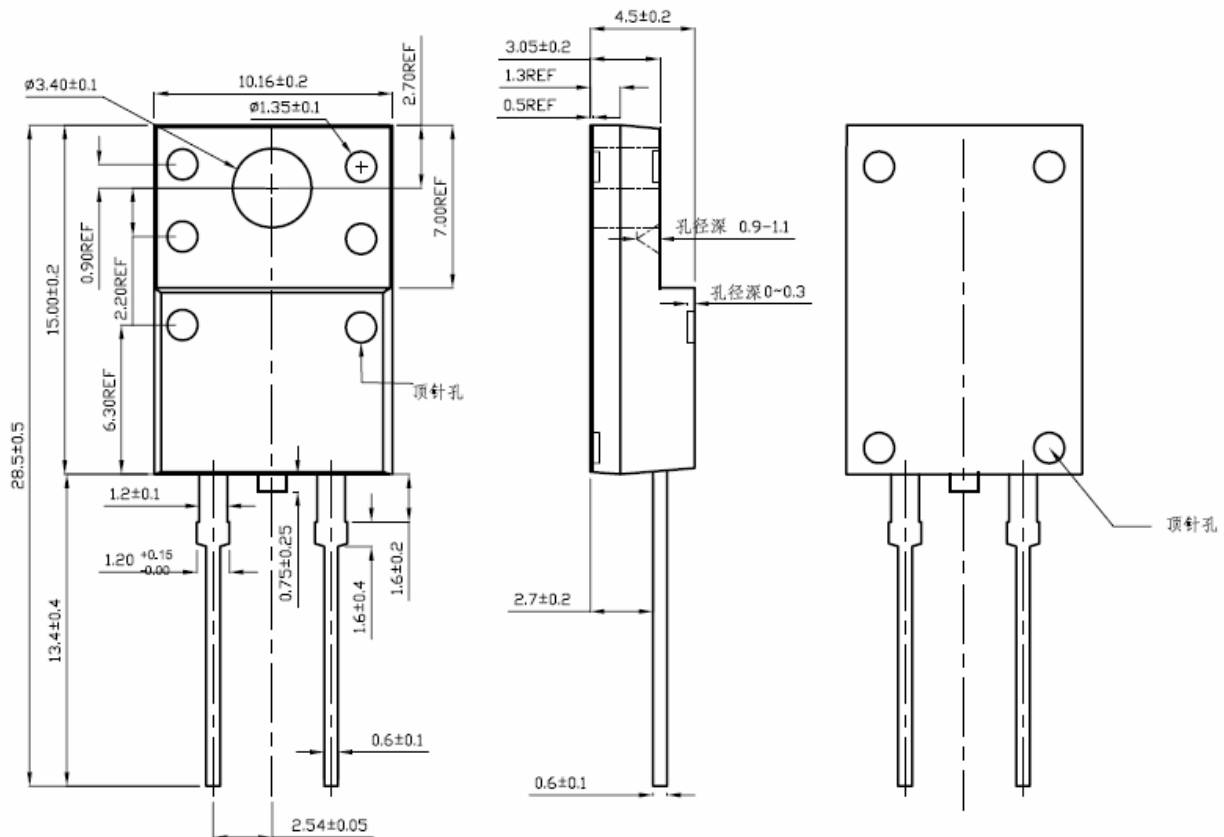


ITO-220AC Dimension



2-Lead ITO-220AC Plastic Package
 CYStek Package Code: F2

Style: Pin 1.Cathode 2.Anode



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