

FAST RECOVERY EPITAXIAL DIODE	600V / 60A $V_F=2.2V@I_F=30A, trr=52ns$
<p>PRODUCT FEATURES</p> <ul style="list-style-type: none"> ● Ultrafast Recovery Time ● Soft Recovery Characteristics ● Low Recovery Loss ● Low Forward Voltage ● High Surge Current Capability ● Low Leakage Current <p>APPLICATIONS</p> <ul style="list-style-type: none"> ● Converter, PFC ● Freewheeling, Snubber ● UPS, Plating Power Supply ● Inversion Welder <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> ● Case : TO-247AB Molded Plastic ● Epoxy : UL94V-0 rate flame retardant ● Polarity : As Marked 	<p>TO-247AB</p> <p style="text-align: center;">Dimensions in inches (millimeter)</p>

ABSOLUTE MAXIMUM RATINGS (TC=25 °C unless otherwise specified)				
PARAMETER		SYMBOL	VALUES	UNIT
		Marking	D60A06P	
Maximum Repetitive Reverse Voltage		V_{RM}	600	V
Average Forward Current		$T_C=95^\circ C, \text{ Per Diode}$		30
		$T_C=95^\circ C, \text{ Per Package}$		60
Non-Repetitive Surge Forward Current		I_{FSM}	300	A
Power Dissipation		P_D	147	W
Operating Junction and Storage Temperatures		T_J, T_{STG}	-55 to + 150	°C
Thermal Resistance		Junction-to-Case		$R_{\theta JC}$
Module-to-Sink			1.1	Nt.m
Weight			5.8	g

ELECTRICAL AND DYNAMIC RECOVERY CHARACTERISTICS (T_J=25 °C, unless otherwise specified)						
PARAMETER	TEST CONDITIONS	SYMBOL	Min.	Typ.	Max.	UNIT
Reverse Leakage Current	$V_R=600V$	I_{RM}	-	-	25	μA
	$V_R=600V, T_J=125^\circ C$		-	-	250	μA
Forward Voltage	$I_F=30A$	V_F	-	1.6	2.2	V
	$I_F=30V, T_J=125^\circ C$		-	-	2.0	V
Reverse Recovery Time	$I_F=1A, V_R=30V, diF/dt=-200A/\mu s$	trr	-	35	-	ns
Reverse Recovery Time	$V_R=300V, I_F=30A$	trr	-	52	-	ns
Max. Reverse Recovery Current	$di_F/dt=-200A/\mu s, T_J=25^\circ C$	I_{RRM}	-	3.8	-	A
Reverse Recovery Time	$V_R=300V, I_F=30A$	trr	-	135	-	ns
Max. Reverse Recovery Current	$di_F/dt=-200A/\mu s, T_J=125^\circ C$	I_{RRM}	-	8.8	-	A

FIG. 1 - Typical Forward Voltage Drop Characteristics

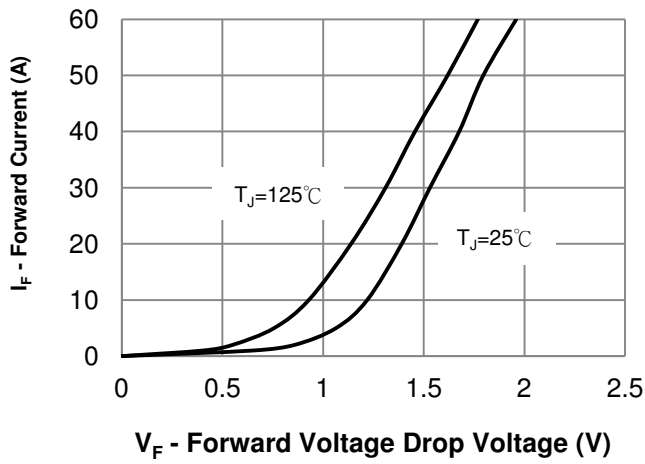


FIG. 2 - Typical Value of Reverse Current vs. Reverse Voltage

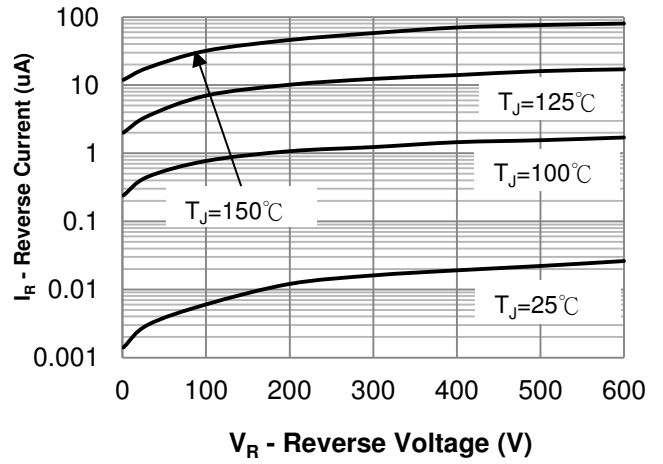


FIG. 3 - Typical Junction Capacitance vs. Reverse Voltage

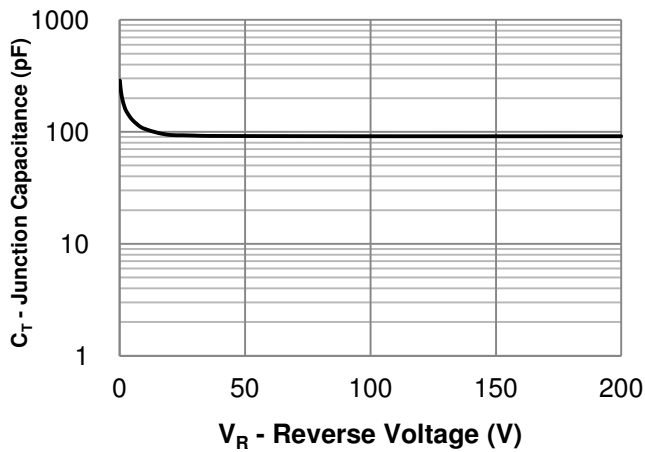


FIG. 4 - Average Forward Current vs. Maximum Allowable Case Temperature

