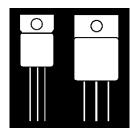
LOW VOLTAGE, LOW R_{DS(on)} POWER MOSFETS IN HERMETIC ISOLATED PACKAGE



50V And 60V Ultra Low R_{DS(on)}
Power MOSFETs In TO-257 And TO-254
Isolated Packages

FEATURES

- · Isolated Hermetic Metal Packages
- Ultra Low R_{DS(on)}
- Low Conductive Loss/Low Gate Charge
- Available Screened To MIL-S-19500, TX, TXV And S Levels
- · Ceramic Feedthroughs Available

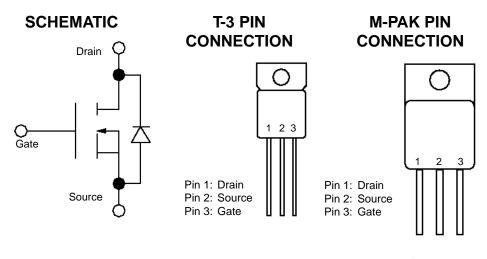
DESCRIPTION

This series of hermetic packaged MOSFETs are ideally suited for low voltage applications; battery powered voltage power supplies, motor controls, dc to dc converters and synchronous rectification. The low conduction loss allows smaller heat sinking and the low gate charge simpler drive circuitry.

MAXIMUM RATINGS (Per Device)

PART NO.	V _{DS} (V)	$R_{DS(on)}(\Omega)$	I _D (A)	Package
OM60N06SA	60	.025	60	TO-254AA
OM50N06SA	60	.030	50	TO-254AA
OM50N06ST	60	.035	50	TO-257AA
OM60N05SA	50	.025	60	TO-254AA
OM50N05SA	50	.030	50	TO-254AA
OM50N05ST	50	.035	50	TO-257AA

3.1



4 11 R1 Supersedes 3 02 R0 3.1 - 65



OM60N06SA - OM50N05ST

ABSOLUTE MAXIMUM RATINGS ($T_C = 25^{\circ}C$ unless otherwise noted)

	Parameter	60N06SA	50N06ST 50N05SA	60N05SA	50N05ST 50N05SA	Units
V _{DS}	Drain-Source Voltage	60	60	50	50	V
V_{DGR}	Drain-Gate Voltage ($R_{GS} = 1 \text{ M}\Omega$)	60	60	50	50	٧
V _{GS}	Gate-Source Voltage, Continuous	<u>+</u> 20	<u>+</u> 20	<u>+</u> 20	<u>+</u> 20	٧
I _D @ T _C = 25°C	Continuous Drain Current ²	55	50	55	50	Α
I _D @ T _C = 100°C	Continuous Drain Current ²	37	33	37	33	Α
I _{DM}	Pulsed Drain Current ¹	220	200	220	200	Α
P _D @ T _C = 25°C	Maximum Power Dissipation	100	100	100	100	W
P _D @ T _C = 100°C	Maximum Power Dissipation	40	40	40	40	W
Junction-To-Case	Linear Derating Factor ¹	.80	.80	.80	.80	W/°C
T _J	Operating and	55 to 150	EE to 1E0	EE to 150	EE to 1E0	°C
T _{stg}	Storage Temperature Range	-55 to 150	-55 to 150	-55 to 150	-55 to 150	
Lead Temperature	(1/16" from case for 10 secs.)	300	300	300	300	°C

¹ Pulse Test: Pulse width \leq 300 µsec. Duty Cycle \leq 1.5%. 2 Package Limited SA I $_0$ = 25 A, SC SC I $_0$ = 35 A @ 25° C

THERMAL RESISTANCE

				l
R _{th IC}	Junction-to-Case	1.25	°C/W	l

PACKAGE LIMITATIONS

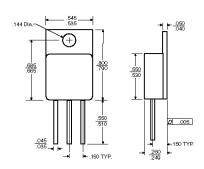
	Parameters	TO254AA	TO-257AA	Unit
I_D	Continuous Drain Current	25	15	Α
	Linear Derating Factor, Junction-to-Ambient	.020	.015	W/°C
R _{thJA}	Thermal Resistance, Junction-to-Ambient (Free Air Operation)	50	65	°C/W
	Linear Derating, Junction-to-Case	0.8	0.8	W/°C

3.1

T-3 MECHANICAL OUTLINE

.430 .410 *B* .∞5 -.100 TYP. ←.120 TYP.

M-PAK MECHANICAL OUTLINE



MOD PAK Ю Z-TAB 0 0

6 PIN SIP

PACKAGE OPTIONS

- Standard Products are supplied with glass feedthroughs. For ceramic feedthroughs, add the letter "C" to the part number. Example OMXXXXCSA.
- MOSFETs are also available in Z-Pak, dual and quad pak styles. Please call the factory for more information.



3.1

OM50N06SA ($T_{\rm c} = 25^{\circ}{\rm C}$ unless otherwise specified)

OM60N06SA ($\Gamma_{\rm c}$ =25°C unless otherwise specified)

		h		-								ſ
Avalanc		Min. Ty	Typ. Max.	x. Units		Avalanc	Avalanche Characteristics	Min.	Typ. M		Units Test Concitions	
HØ.	Avalanche Qurent		33	Α	(repetitive or non-repetitive, T _J =25°C)	AR.	Avalanche Current			50 A		
Ę	Single Pulse Avalanche Energy		520	ر م	(starting $T_J = 25^{\circ}C$, $I_D = I_{AP}$, $V_{CD} = 25^{\circ}V$)	E _{AS}	Single Pulse Avalanche Energy		4	400 m	mJ (starting $T_{\rm J}$ =25°C, $I_{\rm D}$ =1 $\mu_{\rm P}$ $V_{\rm DD}$ =25 V)	
Ę	Repetitive Avalanche Energy		130	m c	(pulse width limited by T_{lms} , δ < 1%)	Ę	Repetitive Avalandhe Energy		-	100 m		
Ho/	Avalanche Qurent		8	٧ :	(repetitive or non-repetitive, T ₁ =100°C)	Ap.	Avalanche Current			<u>ر</u> ج	A (repetitive or non-repetitive, T _i =100°C)	
Electrica	Electrical Characteristics - OFF					Electrics	Bectrical Characteristics - OFF					
Verices		8		>	$I_D = 250 \mu$ A, $V_{cs} = 0$	V _{(BP)DSS}		8			V I _D =250µA, V _∞ =0	
	Zen Gate Whase		25		V Max Bat		Dreakdown Voltage		0		A V Max Rat	
<u> </u>	Drain Current (N_{∞} = 0)		38	14	$V_{DS} = 1$ Mex. Plat. x 0.8 , $T_{C} = 125^{\circ}$ C	<u>8</u>	Drain Qurent (V_{∞} =0)		√ ₩	38	μ A $V_{\rm DS} = Max Rat \times 0.8 T_{\rm C} = 125 C$	
<u>88</u>	Gatte-Body Leakage		∓100	ν V	V _{cs} =±20V	_88	Gatte-Body Leakage		·+I	u 001∓	nA V _{SS} = ±20V	
	Current (V _{DS} = 0)						Current (V _{DS} = U)					
Hectno	Electrical Characteristics - ON:	-	-	ļ	-		Electrical Characteristics - ON:		-	ŀ	Ī	
Vositi	Gate Threshold Voltage	2	4	>	V _{DS} = V _{GS} , I _D = 250 µA	Vositi	Gate Threshold Voltage	7		_		
E E	Static Drain-Source On		.025	C.	V _S =10V, I _D =30A	<u>B</u>	Static Drain-Source On		O.	880. CZ		
	Resistance		050		T _c =100°C		Resistance		O.	056 0		
Dion)	On State Drain Current	55		Α	V _{DS} > I _{E(m)} x R _{DS(m)mer} V _{GS} = 10 V	D(an)	On State Drain Current	ß		1	A V _{DS} >l _{D(m)} ×R _{DE(m)mav} V _{GS} =10V	>
Electrica	Electrical Characteristics - Dynamic					Electrics 1	Electrical Characteristics - Dynamic					
န်	Forward Transconductance	-16		S	V _{DS} > I _{C(1)} x R _{DE(1)} may I _D =30 A	තී	Forward Transconductance	21		0)	S V _{DS} > l _{D(m)} x R _{DE(m)max} l _D =25A	
౮	Input Capacitance	2500	8	뇹	V _{D8} =25 V	ශී	Input Capacitance	C	2000	d		
တိဳ	Output Capacitance	<u>8</u>	9	Æ.	V _∞ =0	ပ္ခ်ိဳ	Output Capacitance	T-	8	<u>α</u>	pF V _{ss} =0	
ပ္ခ်	Peverse Transfer Capacitance	250	Q	뇨	f=1 mHz	ပ	Reverse Transfer Capacitance	.,	300	Ь	F [f=1mHz	
Electrica	Electrical Characteristics - Switching On	٠				Electrica Electr	Electrical Characteristics - Switching On			ł	1	
Tdon	Tum-On Time	110	0	δī	V ₀₀ =25 V, I ₀ =55 A	T _{ɗal}	Tum-On Time		45	₽	1 NS $V_{\text{LD}} = 25 \text{V}, I_{\text{D}} = 29 \text{A}$	
••	_	300	Ω	র	_				8	ב		
(di∕dt) _{on}	Tum-On Current Slope	94	160	Ayus	V _{cc} =40V, l _c =55A R _c =50Ω, V _{cc} =10V	(divdt) _{en}	Tum-On Qurrent Slope		500	₩	$A\mu S V_{\rm ID} = 40 \text{ V}, I_{\rm D} = 50 \text{ A}$ $ R_{\rm D} = 50 \Omega, V_{\infty} = 10 \text{ V}$	
ර	Total Gate Charge	F8	LO	ပ်	$V_{\rm D} = 25 \text{ V, } l_{\rm D} = 30 \text{ A V}_{\odot} = 10 \text{ V}$	ගී	Total Gate Charge		4	5	Ė	>
Electrics	Electrical Characteristics - Switching Off					Bectrica	Bectrical Characteristics - Switching Off					
Tr(Voff)	Off Voltage Rise Time	160	Q	ঠ	V _D =40 V, I _D =55 A	Tukan	Off Voltage Rise Time		480	<u>u</u>	nS $V_{\rm D} = 40 \text{ V}, I_{\rm D} = 50 \text{ A}$	
	Fall Time	Ψ_			R _c =50Ω, V _{cs} =10V		Fall Time		8	_	S R _c =50ಬ,V _{cs} =10V	
acces.	Cross-Over Time	-1	320	_		doss.	Cross-Over Time		ξξ į			IJ
Electrica	Electrical Characteristics - Source Drain Diocle	oce oce				Electric:	Electrical Characteristics - Source Drain Diocle	Siocle				T
<u></u>	Source Drain Current		KS 등	< -		8	Source Drain Current		4, 0	도 다 다		
, MG	Source Life V. ".		χ,	4	C LL	ing;	Source Lian Current (pulsed)		N	_	-	П
- R	Forward On Voftage		0	4	ls=55A, Vs=0	₽ >	Horward Un Voltage			4	7	T
+ F	Reverse Recovery Time		<u></u>	<u>δ</u>	I _{ED} = 55 A, dividt = 100 A/µs V _E = 25 V, T _i = 150°C	ئ ي	Reverse Recovery Time			원 -	nS I _{SD} = 50 A, di/dt = 100 A/µs V _R = 30 V, T _i = 150 C	
ď-	Reverse Recovery Charge		55 -	<u>3</u> <		of_	Reverse Recovery Charge			25 ×		
EEC	neverse necovery current		Ω.	4		HE	neverse necovery current			-		
*Pulsec	*Pulsed: Pulse Duration ≤300µS, Dufy Cycle ≤ 1.5%	e≤1.5%				*Pulsec	*Pulsed: Pulse Duration ≤ 300 µS, Dufy Oyole ≤ 1.5%	oe≤1.5%	, d			

*Pulsed: Pulse Duration < 300 µS, Duty Oyde < 1.5%

Avaland	Avalanche Characteristics	Min.	Typ.	1	22	Test Conditions	Avalan	Avalanche Characteristics	ē	Typ.		Ð
_# #	Avalanche Current			ය ස	<u> </u>	(repetitive or non-repetitive,T _J =25°C)	_¥	Avalanche Qurent		4,	ৰ ৪	(repetitive or non-repetitive, T _s =25°C)
EAS	Single Pulse Avalanche Energy			400	۳ 1	(starting $T_{J} = 25^{\circ}C_{J}$ $I_{J} = I_{JD} \setminus V_{JD} = 25^{\circ}V$)	E _{AS}	Single Pulse Avalanche Energy		ry C	520 mJ	
E _{AR}	Repetitive Avalanche Energy			901	트) 고	(pulse width limited by T _{imm} , 8 < 1%)	E _{AR}	Repetitive Avalanche Energy		-	130 mJ	
är'	Avalanche Quirent			8) L	(repetitive or non-repetitive, T,=100°C)	ĕ¥/	Avalanche Ourent			34 A	
Electric	Electrical Characteristics - OTF		_				Becti	Electrical Characteristics - OTF				
V (верss	, Drain-Source Breakdown Voltage	09			î ^	$b = 250 \mu \text{A.V}{cs} = 0$	V _(BB) V	s Drain-Source Breakdown Voltace	8		^	$ l_{\mathbf{p}} = 250 \mu \text{A.V}_{cs} = 0$
SSC	Zero Gate Voltage				AH V	V _{os} =Max. Rat.	887	Zero Gate Voltage		2	250 µA	
	Drain Qurrent ($V_{cs}=0$)					$V_{DS} = Wax Rat. \times 0.8$, $T_c = 125^{\circ}C$		Drain Qurrent (V_{cs} = 0)		¥		
<u>&</u>	Gate-Body Leakage Current (V _{rx} = 0)			- <u>8</u>	<u>م</u>	V _{os} = ±20 V	<u>&</u>	Gate-Body Leakage Current (V~=0)		+1	±100 rrA	$V_{as} = \pm 20 \text{ V}$
Electric	Electrical Characteristics - ON*		_				Electri	Electrical Characteristics - ON*			-	
V _{GS(fh)}	Gate Threshold Voltage	CA		4	\ \	$V_{DS} = V_{GS}$, $I_D = 250 \mu \text{A}$	Costan)	Gate Threshold Voltage	62		4 V	Ė
H _{oston)}						$V_{GS} = 10 \text{ V}, I_{D} = 25 \text{ A}$	R _{DS(cn)}			or		
				990:	୍ଦ	$T_c = 100^{\circ}C$				O.	ന് 090	
D(an)	On State Drain Qurrent	ය			A	$V_{DS} > D_{DS}_{OS} \times P_{DS_{COS},max}, V_{GS} = 10 \text{ V}$	D(cn)	On State Drain Qurrent	R		A	$V_{DS} > V_{DS(co)loop} \times P_{DS(co)loop} V_{GS} = 10 V$
Electric	Electrical Characteristics - Dynamic						Electri	Electrical Characteristics - Dynamic				ŀ
g.	Forward Transconductance	17			-	Vos > Igan,×Rosamas Ig=25 A	%	Forward Transconductance	16		တ	
ಿ	Input Capacitance		8 8		<u></u> L	V ₀₈ =25 V	් ්	Input Capacitance		8	<u></u>	
8	Cubal Cabadia Ca Boverso Transfer Cabagians		3 8			V 65 ≡ U f - 1 m H 7	8	Cuba Cabada Toe Beerso Transfer Cabadans			5.5	. V _{GS} =U
Electrical	Electrical Characteristics - Switching On		3		1	1	Eectri.	Bedrical Characteristics - Switching On			Σ	
Talan	Tum-On Time		8		H	$V_{ap} = 25 \text{ V, } I_p = 29 \text{ A}$		Tum-On Time		110	Sn	$V_{2p} = 25V_1b = 55A$
٠,	Rise Time		8	_		$R_G = 4.7\Omega$, $\tilde{V}_{os} = 10V$	۲.	Rise Time		300	δ	
(db/dt), a	, Tum-On Qurrent Slope		200	đ	√ Su/w	$V_{20} = 40 \text{ V}, I_{2} = 50 \text{ A}$ $P_{2} = 50.9, V_{22} = 10 \text{ V}$	(dr/dt),,	"Tum-On Quirent Slope		160	Srlyv	_
ď	Total Gate Charge		₽		<u>2</u>	$V_{00} = 40 \text{ V} \cdot V_{08} = 10 \text{ V}$	ਂ	Total Gate Charge		88	읻	+
Electric	Electrical Characteristics - Switching Off						Electri	Electrical Characteristics - Switching Off				
(100A)).	Off Voltage Rise Time		160			$V_{\mathbf{DP}} = 40 \text{ V}, \mathbf{l_p} = 50 \text{ A}$	(1001) ¹	Off Voltage Rise Time		160	Su	
۔ د	ra∎ iime Gress-Over Time		ક્રેસ્ટ		2 Y2	റ് ₆ =50മ, ് ₈ =10 ∨	ـ ح	ra∎ ime Gres⊖ver Time		36.	5 6	Hg=5012, Vgs=10 V
Electric	Electrical Characteristics - Source Drain Dioce	900k	}		2		Bectri	Bedrical Characteristics - Source Drain Diode	Diode	ŝ	-	
ß	Source Drain Current	:		8	A		8	Source Drain Current		u,	_	
* MOS	Source Drain Current (pulsed)			88	⋖		* MOS	Source Drain Current (pulsed)		<u>a</u>	200	
\ So	Forward On Voltage				H	$\mathbf{s_0} = 50 \text{A} \cdot \text{V}_{cs} = 0$	\ S	Forward On Voltage				
t _r	Reverse Recovery Time			150	<u>'</u> Su	lso=50 A, dividt = 100 Avfus √s = 30 V, T,=150°C	$t_{I\!\!r}$	Reverse Recovery Time		-	100 nS	$ l_{so} = 55 \text{ A, divdt} = 100 \text{ A/us} $ $ V_{so} = 25 \text{ V, T,} = 150 \text{ C}$
ď.	Reverse Recovery Charge Reverse Recovery Current			0.2	<u>일</u> <		ď.	Reverse Recovery Charge Reverse Recovery Current			25 PC	
H-W	I to come worked a come.	-		_			W-OIV					

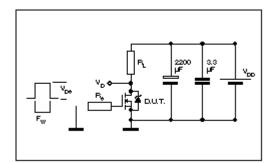
3.1

CM50N05ST ($T_c = 25^{\circ}$ C unless otherwise specified)

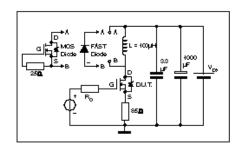
 $\textbf{OM50N05SA} \ \ (T_c \! = \! 28\% \text{ unless otherwise specified})$

							[
Avalanc	Avaianche Characteristics	<u> </u>	œ.	2	_		Avalano	Avalanche Characteristics	Ē	lyp. Max	Nax Nax	Jugs	Units lest Conditions
₩	Avalanche Gurrent			ৰ ৪	(repetitive or non-repetitive,T _J =25°C)	 රි	<u>#</u>	Avalanche Current			<u> </u>	⋖	(repetitive or non-repetitive,T_=25°C)
EAS	Single Pulse Avalanche Energy		4	400 mJ			EAS	Single Pulse Avalanche Energy			004	3	(starting $T_J = 25^{\circ}$ C, $I_D = I_{DD} \setminus D_{DD} = 25^{\circ}$ V)
EAR	Repetitive Avalanche Energy		-	100 m			EAR	Repetitive Avalanche Energy			100	<u> </u>	(pulse width limited by T _{imen} , 5 < 1%)
<u>#</u>	Avalanche Current			30 A		()6(äv.	Avalanche Qurent			e 8	⋖	(repetitive or
Electrica	Electrical Characteristics-O开		1		No. I Supposed House		Bectrica	Bectrical Characteristics-O开					(2001 - 1 - 2000 c)
V/BPDSS	Drain-Source	යි		Λ	$l_{b} = 250 \mu \text{A, V}_{cs} = 0$		V/BRIDSS	Drain-Source	ଞ			>	$b_{\rm B} = 250 \mu \text{M}, V_{\rm cs} = 0$
SSC	Zero Gate Voltage		CA	250 µA	4 Vos=Max. Rat.		SSC	Zero Gate Voltage				AT.	V _{os} =Max. Rat.
	Drain Current (V_{cs} =0)		Ť			್=125°C		Drain Qurrent ($V_{os} = 0$)					$V_{cs} = Max Rat \times 0.8 T_c = 125^{\circ}C$
<u>&</u>	Gate-Body Leakage		`+I	±100	4 V _{os} = ±20 V		<u>&</u>	Gatte-Body Leakage			00 H	<u>4</u>	$V_{as} = \pm 20 \text{ V}$
	Ourrent $(V_{SS} = 0)$							Ourrent ($V_{cs} = 0$)					
Electric	Electrical Characteristics - ON*						Bectrics	Electrical Characteristics - ON*					
V _{GS(fh)}		7		4 V			V _{GS(fb)}	Gate Threshold Voltage	2		4	Λ	$V_{DS} = V_{GS}$, $I_D = 250 \mu \text{A}$
P. DS(on)			y	.028			P. Doslan)	Static Drain-Source On					$V_{GS} = 10 \text{ V, } I_D = 25 \text{ A}$
			γ					Resistance			990	ಬ	$T_c = 100^{\circ}$
Dian	On State Drain Qurrent	8		А	$\langle V_{DS} > D_{CO3} \times P_{DS/CO3/max}, V_{GS} = 10 \text{ V} \rangle$	$V_{GS} = 10 \text{ V}$	Dian	On State Drain Qurrent	8			А	$V_{DS} > I_{DGOth} \times P_{DSGOthmore} V_{GS} = 10 \text{ V}$
Electric	Electrical Characteristics - Dynamic						Bectrics	Electrical Characteristics - Dynamic					
% 5	Forward Transconductance	<i>2</i> 1		S	$ V_{DS}\rangle V_{DS}\rangle V_{DS} = 25 \text{ A}$	j=25A	% 6	Forward Transconductance	47				Vos > IponyXPosconom Ip= 25 A
ပံ	Input Capacitance	2	000	占	Ė		,	Input Capacitance		2000			V ₀₈ =25V
	Output Capacitance	_	8	. 님				Output Capacitance		8		넁	V_s = 0
0	Reverse Transfer Capacitance	.,	300	. 납			<u>ا</u>	Reverse Transfer Capacitance		300			f=1mHz
Electric	Electrical Characteristics - Switching On						Bedrica	Electrical Characteristics - Switching On					
	Tum-On Time		45	Sn	S Vm=25V h =29A		Τ,	Tum-On Time		45		Su	V ₂₂ =25V, 1 ₂ =29A
-t,			88	2			t,			8			$R_G = 4.7\Omega$, $V_{os} = 10V$
(dr/dt),,	Tum-On Current Slope		200	Srļw	$V_{DD} = 40 \text{ V}_{.} \text{ I}_{D} = 50 \text{ A}$ $V_{DC} = 50 \text{ O}_{.} \text{ V}_{CC} = 10 \text{ V}$		(p/p)	Tum-On Current Slope		200	7	Srļvo	$V_{20} = 40 \text{ V} \cdot \mathbf{l_b} = 50 \text{ A}$ $P_{c} = 50.0 \cdot V_{\infty} = 10 \text{ V}$
ď	Total Gate Charge		45	5	H	√os=10 V	ď	Total Gate Charge		8		ပ်	$V_{DD} = 40 \text{ V} \cdot \text{L}_{D} = 50 \text{ A} \cdot \text{V}_{SS} = 10 \text{ V}$
Electric	Electrical Characteristics - Switching Off						Bedrica	Electrical Characteristics - Switching Off					
Τ,γναθ	Off Voltage Rise Time		160	ZL.	S V ₂₀ =40V, b =50A		T, (VOE)	Off Voltage Rise Time		160			$V_{2p} = 40 \text{ V} \cdot I_p = 50 \text{ A}$
٠,	Fall Time		8	δ			· +-	Fall Time		8			R _e =50Ω, V _{cs} =10 V
taces	Gross-Over Time	-	8	2			t arces	Gross-Over Time		S S		ত	
• Electrica	Electrical Characteristics - Source Drain Diode	Siocle					Bectrics	Electrical Characteristics - Source Drain Diode	Diode				
<u>-8</u>	Source Drain Current		<u> </u>				<u>s</u>	Source Drain Current			8	Ą	
* MOS	Source Drain Current (pulsed)		CA	200 A			* MCS	Source Drain Current (pulsed)			88	Д	
as/	Forward On Voltage						\ So	Forward On Voltage				Λ	$\mathbf{S}_{\mathbf{S}} = 50 \text{A}, \text{V}_{\mathbf{SS}} = 0$
<u>,</u> *	Reverse Recovery Time		_	150 NS		w/us	' "	Reverse Recovery Time			ලි	ဖွ	lsp = 50 A, di/dt = 100 A/us
					$\nabla V_R = 30 \text{ V}$, $I_f = 150 \text{ C}$		C					($V_R = 30 \text{ V, } I_f = 150 \text{ C}$
₹ <u></u>	Reverse Recovery Current		-	4 4 7 4	· ·		₹ <u></u>	Reverse Recovery Current			4 4	} ⊲	
) + V olo	1				the shows	(C) # (C)	10 10 10	l a			
1 <u>8</u>	"Fulsed: Pulse Lutations 300µ5, Luty Cydes 1,5%.	Ser view	.oi				3	"Huisea: Huise Durairons Joupp, Dury Cydes 1,5%.	Sevie	ė			

Switching Times Test Circuits For Resistive Load

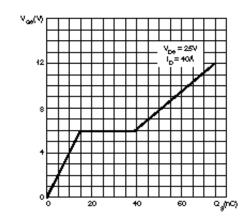


Test Circuit For Inductive Load Switching And Diode Reverse Recovery Time

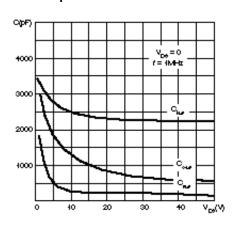


TYPICAL CHARACTERISTICS

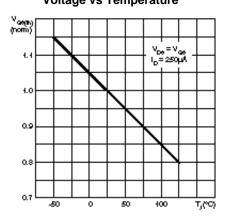
Gate Charge vs Gate-Source Voltage



Capacitance Variations



Normalized Gate Threshold Voltage vs Temperature



Normalized On Resistance vs Temperature

