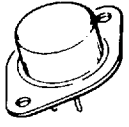
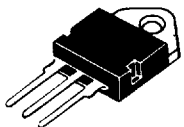
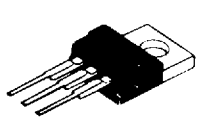

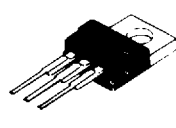
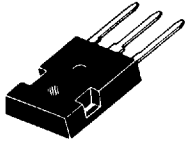

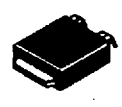


## Insulated-Gate Bipolar Transistors (IGBTs)

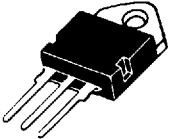
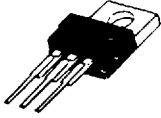
### N-Channel Enhancement-Mode Conductivity Modulated Power Field-Effect Transistors—IGBTs Optimized for Switching Applications

Maximum Ratings				Package		
						
$V_{CES}$ (V)	$I_{CE}$ (A)	$t_f$ ( $\mu$ s)	$V_{CE}$ (V)	TO-204AA	TO-218AC	TO-220AB
400	5	1.0	2.0	2N6975	IGTH10N40 IGTM10N40A IGTH20N40 IGTM20N40A	IGTP10N40 IGTP10N40A IGTP20N40 IGTP20N40A
	5	0.5	2.0	2N6977		
	10	1.0	2.5	IGTM10N40		
	10	0.5	2.5	IGTM20N40		
	20	0.5	2.5	IGTM20N40A		
500	5	1.0	2.0	2N6976	IGTH10N50 IGTH10N50A IGTH20N50 IGTH20N50A	IGTP10N50 IGTP10N50A IGTP20N50 IGTP20N50A
	5	0.5	2.0	2N6978		
	10	1.0	2.5	IGTM10N50		
	10	0.5	2.5	IGTM20N50		
	20	0.5	2.5	IGTM20N50A		

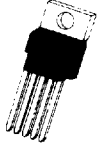

### IGBTs Optimized for Motor Drive Applications

Maximum Ratings				Package				
								
$V_{CES}$ (V)	$I_{CE}$ (A)	$V_{CE}$ (V)	SOA $I_{CE}$	TO-204AA	TO-220AB	TO-247	TO-251	TO-252
400	3	2.5	7.5A	IGT6D10 IGT6D11 IGT6D20 IGT6D21	IGT4D10 IGT4D11	IGT8D20 IGT8D21	IGT3N40 IGT5N40	IGT3N40SM IGT5N40SM
	5	2.5	11A					
	18	2.5	30A					
	18	2.5	30A					
	32	2.2	50A					
500	3	2.5	7.5A	IGT6E10 IGT6E11 IGT6E20 IGT6E21	IGT4E10 IGT4E10	IGT8E20 IGT8E21	IGT3N50 IGT5N50	IGT3N50SM IGT5N50SM
	5	2.5	11A					
	18	2.5	30A					
	18	2.5	30A					
	32	2.2	50A					

### IGBTs with Integral Reverse Diode

Maximum Ratings				Package	
					
$V_{CES}$ (V)	$I_{CE}$ (A)	$V_{CE}$ (V)	$t_f$ ( $\mu$ s)	TO-218AC	TO-220AB
400	10	2.5	1.0	IGTH10N40D IGTH10N40AD IGTH20N40D IGTH20N40AD	IGTP10N40D IGTP10N40AD
	10	2.5	0.5		
	20	2.5	1.0		
	20	2.5	0.5		
500	10	2.5	1.0	IGTH10N50D IGTH10N50AD IGTH20N50D IGTH20N50AD	IGTP10N50D IGTP10N50AD
	10	2.5	0.5		
	20	2.5	1.0		
	20	2.5	0.5		

### IGBTs with Integral Current Sensing

Maximum Ratings				Package	
					
$V_{CES}$ (V)	$I_{CE}$ (A)	$V_{CE}$ (V)	$t_f$ ( $\mu$ s)	TO-220 5-lead	TO-218 5-lead
500	10	2.3	1.2	GS1510 IGT5E10CS	GS1525 IGT7E20CS
	10	2.3	1.2		
	25	2.6	1.2		
	25	2.6	1.2		

Through a fourth terminal, these devices provide a nonintrusive means of monitoring the collector-to-emitter current.