

10 AMP NPN PLANAR

TO-61

60 MHz (typical)

40 WATT @ 100°C

PREMIUM GRADE

MAXIMUM RATINGS @ 25°C

RATING	PG1360 PG1361	PG1362 PG1363	PG1364 PG1365 PG1366	UNIT
Collector-Base Voltage	80	120	120	Volts
Emitter-Base Voltage	8	8	8	Volts
Collector-Emitter Voltage	50	70	100	Volts
Collector Current	10	10	10	Amps
Base Current	2	2	2	Amps
Thermal Resistance, Θ_{jc}	2.5	2.5	2.5	°C/W
Dissipation @ 100°C Case	40	40	40	Watts
Operating Junction Temperature	-65 to 200			°C
Storage Temperature Range	-65 to 200			°C

ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN.	MAX.	
h_{FE}^*	$I_C = .01A, V_{CE} = 5V$	All	10		
	$I_C = 5A, V_{CE} = 5V$	PG1360	20	60	
		PG1362			
		PG1364			
		PG1361	40	120	
		PG1363			
	$I_C = 10A, V_{CE} = 5V$	PG1365			
		PG1366	100	300	
		PG1360	10		
		PG1362			
		PG1364			
		PG1361	15		
		PG1363			
		PG1365			
		PG1366	20		

PG-1360-1X

ELECTRICAL CHARACTERISTICS @ 25°C (Continued)

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN.	MAX.	
h_{FE}^*	$I_C = 5A, V_{CE} = 5V, T_C = -55^\circ C$	PG1360	10		
		PG1362			
		PG1364			
		PG1361	15		
		PG1363			
		PG1365			
		PG1366	20		
$V_{CE(sat)}^*$	$I_C = 5A, I_B = 0.5A$	All		0.5	Volts
	$I_C = 10A, I_B = 1A$	PG1360		2.5	Volts
		PG1362			
		PG1364			
V_{BE}^*	$I_C = 5A, V_{CE} = 5V$	All others		1.5	Volts
		All		1.2	Volts
$V_{BE(sat)}^*$	$I_C = 5A, I_B = 0.5A$	All		1.2	Volts
	$I_C = 10A, I_B = 1A$	All		2.0	Volts
		All			
BV_{CBO}	$I_C = 10\mu A, I_E = 0$	PG1360	80		
		PG1361			
		PG1362	120		
		PG1363			
		PG1364	120		
		PG1365			
		PG1366			
BV_{CEO}	$I_C = 10mA, I_B = 0$	PG1360	50		Volts
		PG1361			
		PG1362	70		Volts
		PG1363			
		PG1364	100		Volts
		PG1365			
		PG1366			
$BV_{CEO(sus)}^*$	$I_C = 100mA, I_B = 0$	PG1360	50		Volts
		PG1361			
		PG1362	70		Volts
		PG1363			
		PG1364	100		Volts
		PG1365			
		PG1366			
BV_{EBO}	$I_E = 10\mu A, I_C = 0$	PG1360	50		Volts
		PG1361			
		PG1362	70		Volts
BV_{EBO}	$I_E = 10\mu A, I_C = 0$	PG1363			
		PG1364	100		Volts
		PG1365			
		PG1366			
BV_{EBO}	$I_E = 10\mu A, I_C = 0$	All	8		Volts
		All			

pg-1360-2X

ELECTRICAL CHARACTERISTICS @ 25°C (Continued)

SYMBOL	CONDITIONS	TYPES	LIMIT		UNIT
			MIN.	MAX.	
I_{CEX}	$V_{BE} = -0.5V, V_{CE} = BV_{CBO}$	All		10	μA
	$V_{BE} = -0.5V, V_{CE} = 60V, T_C = 150^\circ C$	All		100	μA
I_{CBO}	$V_{CB} = 60V, I_E = 0$	All		0.1	μA
I_{CEO}	$V_{CE} = 50V, I_B = 0$	All		100	μA
I_{EBO}	$V_{EB} = 5V, I_C = 0$	All		10	μA
$ h_{fe} $	$V_{CE} = 10V, I_C = 1A, f = 10MHz$	All	1.5		
h_{fe}	$V_{CE} = 5V, I_C = 50mA, f = 1KHz$	PG1360 PG1362 PG1364 PG1361 PG1363 PG1365 PG1366	20 40 100	60 120 300	
C_{ob}	$V_{CB} = 10V, I_E = 0.1A, f = 1 MHz$	All		350	pf

*Pulse measurement: $PW \leq 330 \mu sec; \leq 2\%$ duty cycle.

PG-1360-3X