

2N4060-2N4227

TYPE	MATERIAL	POLARITY	REPLACE- MENT	REF.	USE	MAXIMUM RATINGS					ELECTRICAL CHARACTERISTICS									
						P _D @ 25°C	Ref Point	T _J °C	V _{CB} (volts)	V _{CE} — (volts)	Subscript	h _{FE} @ I _C		Units	V _{CE(SAT)} @ I _C	Units	h _f —	Subscript	f _T	Units
2N4060	S	P	MPS6516	MPS6516	A	0.25W	A	150	30	30	0	45	165	1.0M	0.7	10M	45	E		
2N4061	S	P	MPS6517	MPS6516	A	0.25W	A	150	30	30	0	90	330	1.0M	0.7	10M	90	E		
2N4062	S	P	MPS6518	MPS6516	A	0.25W	A	150	30	30	0	180	660	1.0M	0.7	10M	180	E		
2N4063	S	N			AP	10W	C	200	450	350	0	40	160	0.02A					15M	E
2N4064	S	N			AP	10W	C	200	300	250	0	40	160	0.02A					15M	E
2N4065 thru 2N4067	Field-Effect Transistors, see Table on Page 176																			
2N4068	S	N			AH	500M	A	175	150	150	0	30		30M					50M	T
2N4069	S	N			AP	1.0W	C	175	150	150	0	30		0.03A	0.68				50M	T
2N4070	S	N	2N3448	2N3445	AP	115W	C	200	100	80	0	40	120	5.0A	1.5	5.0A	40	E	10M	T
2N4072	S	N		2N4072	AHP	1.5W	C	200	40	20	0	10		25A				550M	T	
2N4073	S	N		2N4072	AHP	1.5W	C	200	40	20	0	10		25A				550M	T	
2N4074	S	N			AH	400M	A	175	40	40	0						400	E		
2N4075	S	N	2N3764	2N3762	AP	30W	C	200		80	0	30	90						30M	T
2N4076	S	N			AP	30W	C	200		80	0	50	150						30M	T
2N4080	S	P			AHP	300M	A	200	20	15	0	20		3.0M					1.0G	T
2N4081	S	N			AH	200M	A		40	40	0	40	180	2.0M			40	E	600M	T
2N4082 thru 2N4085	Field-Effect Transistors, see Table on Page 176																			
2N4086	S	N	MPS6514	MPS6512	A	200M	A		12	12	0	150	300	2.0M			150	E		
2N4087	S	N	MPS6515	MPS6512	A	200M	A		12	12	0	250	500	2.0M			250	E		
2N4087A	S	N	MPS6515	MPS6512	A	200M	A		12	12	0	250	500	2.0M			250	E		
2N4088 thru 2N4095	Field-Effect Transistors, see Table on Page 176																			
2N4096 thru 2N4098	Thyristors, see Table on Page 164																			
2N4099	S	N			AM	300M	A	200	55	55	0	175		1.0M					150M	T
2N4100	S	N			AM	400M	A	200	55	55	0	175		1.0M					150M	T
2N4101 thru 2N4103	Thyristors, see Table on Page 164																			
2N4104	S	N			AH	300M	A	175	60	60	0						1400	E	540M	T
2N4106	G	P	MP2060	MPS2060	A	1.6W	A		25			70	350	5.0M						
2N4108 thru 2N4110	Thyristors, see Table on Page 164																			
2N4111	S	N			AP	30W	C		100	60	0	40	120	2.0A					70M	T
2N4112	S	N			AP	30W	C		100	60	0	100	300	2.0A					80M	T
2N4113	S	N			AP	30W	C		120	80	0	40	120	2.0A					70M	T
2N4114	S	N			AP	3.0W	A		120	80	0	100	300	2.0A				</		



NUMERICAL INDEX

Numerical Listing of EIA-Registered 2N and 3N Type Numbers and Short-Form specifications for Bi-Polar Transistors.

This table serves two functions. It provides a complete listing of EIA-registered 2N and 3N type numbers, for device identification, and gives short-form specifications for bi-polar transistors. Type numbers for devices other than bi-polar transistors (i.e. thyristors, field-effect transistors, etc.), may be listed in blocks (2N — thru 2N —) with reference to subsequent tables where such devices are sequentially tabulated and short-form specifications are given.

KEY

Collector-Emitter Saturation
Voltage at Specified
Collector Current
 I_c Units:
A = Amps
M = milliamps

TYPE	MATERIAL POLARITY	REPLACE- MENT	REF.	USE	MAXIMUM RATINGS				ELECTRICAL CHARACTERISTICS					
					P_D @ 25°C	Ref Point	T_J °C	V_{CBO} (volts)	V_{CE} — (volts)	Subscript	h_{FE} @ I_C (min) (max)	Units	$V_{CE(SAT)}$ @ I_C (volts)	Units
Numerical Listing of 2N and 3N Registered Type Numbers					Common-Emitter DC Short-Circuit Forward-Current Transfer Ratio at Specified Collector Current									
S = Silicon G = Germanium					I_C Units: A = Amps M = milliamps * = microamps N = nanoamps									
P = PNP N = NPN					Maximum Collector-Emitter Voltage (Subscript Identifies Condition)									
Type number of recommended replacement or of nearest electrical equivalent fully characterized in this book					Subscript: O = V_{CEO} = Base Open R = V_{CER} = Specified Resistance S = V_{CES} = Base Shorted V = V_{CEV} = Used when only voltage bias is used X = V_{CEX} = Base-Emitter Back Biased U = V_{CE} = Termination Undefined									
Reference device number indicates specific Data Sheet on which device is characterized					Small-Signal Forward-Current Transfer Ratio (E, B or C defines the parameter) E = h_{fe} = Common-Emitter Current Transfer Ratio B = h_{fb} = Common-Base Current Transfer Ratio C = h_{fc} = Common-Collector Current Transfer Ratio									
APPLICATION CODE A = Amplifier AH = Amplifier, High frequency AHP = Amplifier, High frequency power AL = Amplifier, Light sensitive AM = Amplifier, Multiple device AP = Amplifier, Power S = Switch SC = Switch, Chopper SH = Switch, High speed SHP = Switch, High speed power SP = Switch, Power					CUTOFF FREQUENCY Units: K = KHz M = MHz G = GHz (B, E, M or T Indicate the Parameter) B = f_{hfb} = f_{ab} = Common-Base Cutoff Frequency E = f_{hfe} = f_{ae} = Common-Emitter Cutoff Frequency M = f_{max} = Maximum Frequency of Oscillations T = f_r = Current Gain - Bandwidth Product									
Power Dissipation at 25°C Units: M = milliwatts W = Watts					Maximum Collector - Base Voltage									
Ref. Point: A, C, J, Indicates Ambient, Case, or Junction					Maximum Operating Junction Temperature									