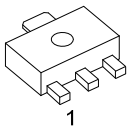
2SD1624

NPN SILICON TRANSISTOR

HIGH CURRENT SWITCHING APPLICATION



SOT-89

■ DESCRIPTION

The UTC **2SD1624** applies to voltage regulators, relay drivers, lamp drivers, and electrical equipment.

■ FEATURES

* Adoption of FBET, MBIT processes
* Low collector-to-emitter saturation voltage
* Fast switching speed.
* Large current capacity and wide ASO

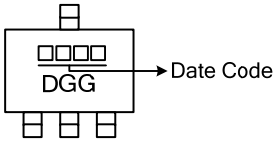
■ ORDERING INFORMATION

Order Number	Package	Pin Assignment			Packing
		1	2	3	
2SD1624G-x-AB3-R	SOT-89	B	C	E	Tape Reel

Note: Pin Assignment: B: Base C: Collector E: Emitter

2SD1624G-x-AB3-R (1)Packing Type (2)Package Type (3)Rank (4)Green Package	(1) R: Tape Reel (2) AB3: SOT-89 (3) x: refer to Classification of h_{FE} (4) G: Halogen Free and Lead Free

■ MARKING



■ ABSOLUTE MAXIMUM RATINGS (T_A=25°C, unless otherwise specified)

PARAMETER		SYMBOL	RATINGS	UNIT
Collector-Base Voltage		V_{CBO}	60	V
Collector-Emitter Voltage		V_{CEO}	50	V
Emitter-Base Voltage		V_{EBO}	6	V
Collector Power Dissipation(Tc=25°C)		P_C	500	mW
Collector Current	DC	I_C	3	A
	PULSE	I_{CP}	6	A
Junction Temperature		T_J	150	°C
Storage Temperature		T_{STG}	-55 ~ +150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

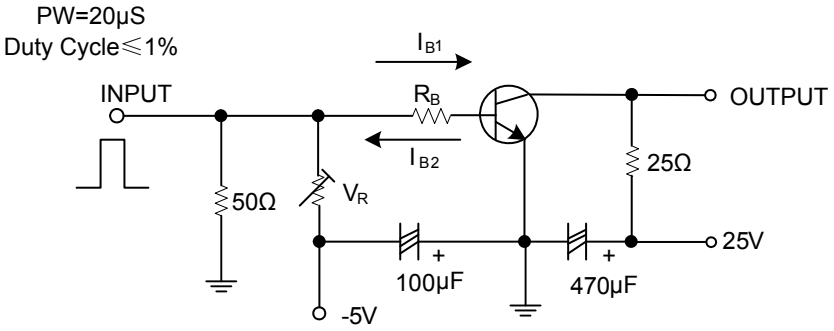
■ ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV_{CBO}	I_C=10μA, I_E=0	60			V
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C=1mA, R_{BE}=∞	50			V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E=10μA, I_C=0	6			V
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C=2A, I_B=100mA		0.19	0.5	V
Base-Emitter Saturation Voltage	$V_{BE(SAT)}$	I_C=2A, I_B=100mA		0.94	1.2	V
Collector Cut-Off Current	I_{CBO}	V_{CB}=40V, I_E=0			1	μA
Emitter Cut-Off Current	I_{EBO}	V_{EB}=4V, I_C=0			1	μA
DC Current Gain	h_{FE}	V_{CE}=2V, Ic=100mA	100		560	
Gain-Bandwidth Product	f_T	V_{CE}=10V, I_C=50mA		150		MHz
Output Capacitance	C_{OB}	V_{CE}=10V, f=1MHz		25		pF
Turn-ON Time	t_{ON}	See test circuit		70		ns
Storage Time	t_{STG}	See test circuit		650		ns
Fall Time	t_F	See test circuit		35		ns

■ CLASSIFICATION OF h_{FE}

RANK	R	S	T	U
RANGE	100-200	140-280	200-400	280-560

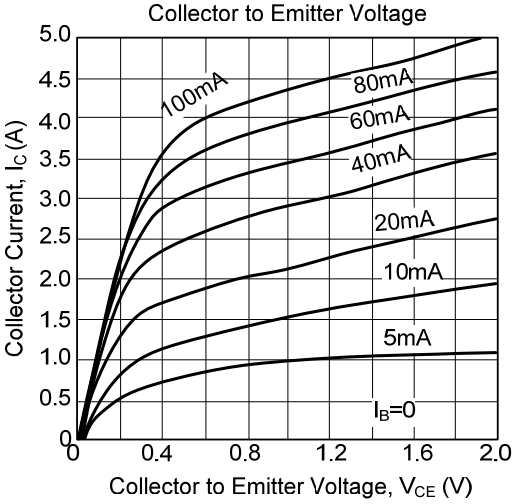
■ TEST CIRCUIT



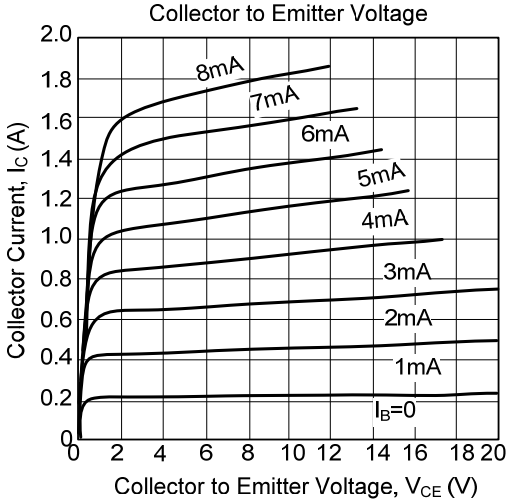
I_C=10, I_{B1}= -10, I_{B2}=1A

■ TYPICAL CHARACTERISTICS

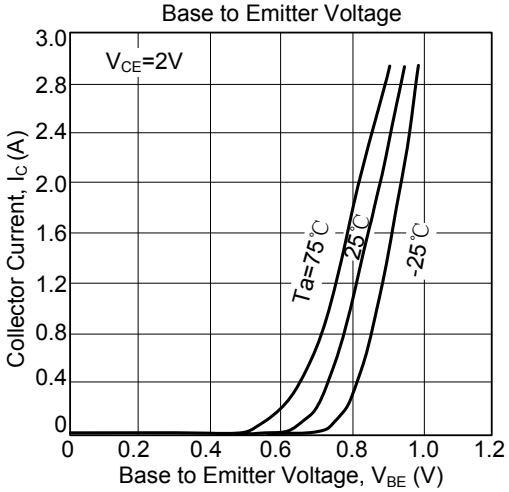
Collector Current vs.
Collector to Emitter Voltage



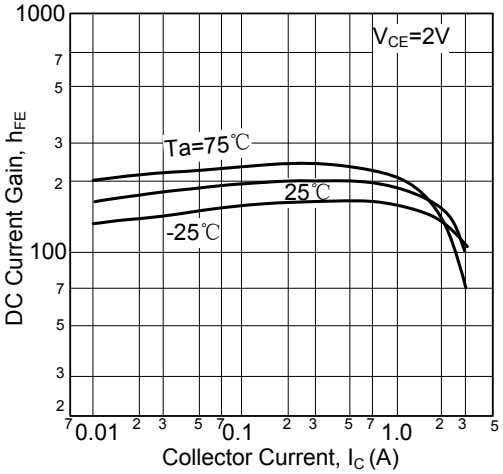
Collector Current vs.
Collector to Emitter Voltage



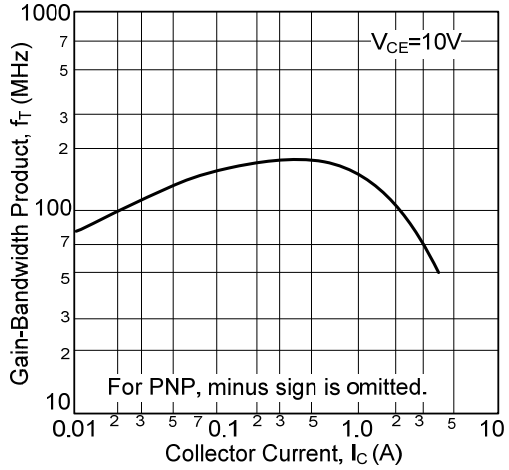
Collector Current vs.
Base to Emitter Voltage



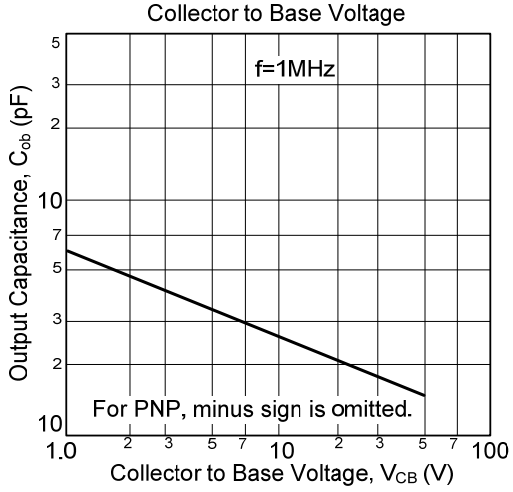
DC Current Gain vs. Collector Current



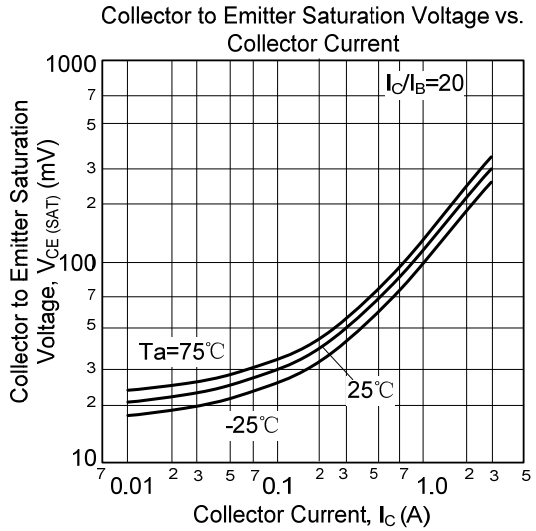
Gain-Bandwidth Product vs.
Collector Current

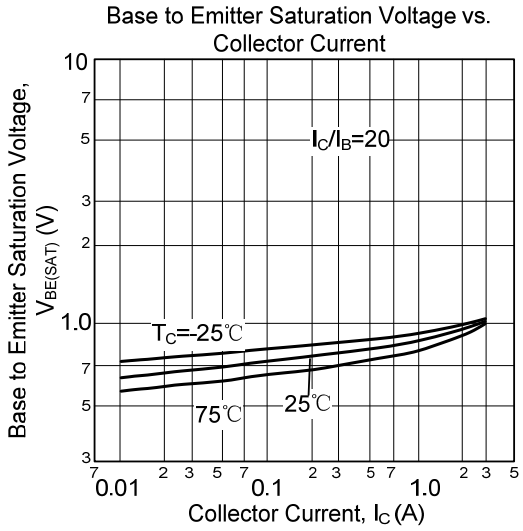


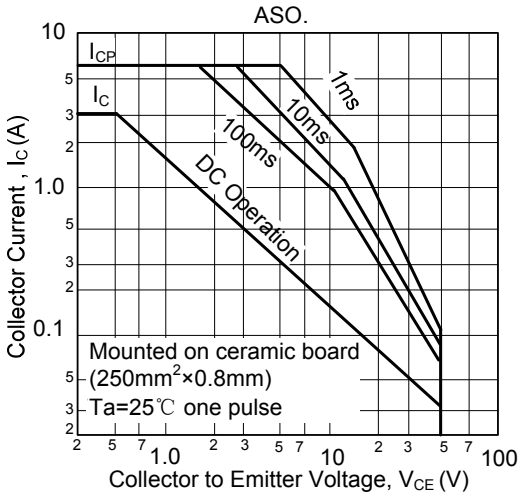
Output Capacitance vs.
Collector to Base Voltage

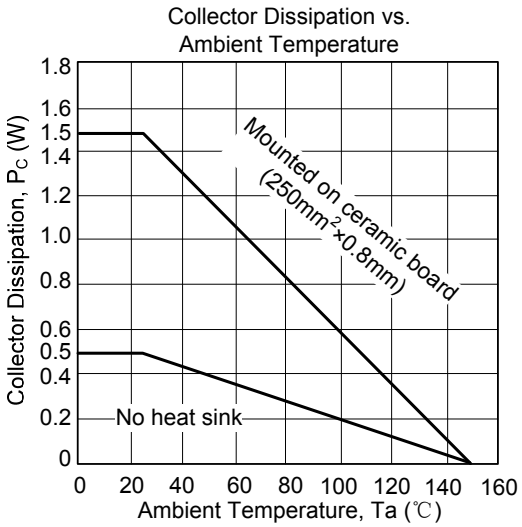


■ TYPICAL CHARACTERISTICS(Cont.)









X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for Bipolar Transistors - BJT ***category:***

Click to view products by Unisonic ***manufacturer:***

Other Similar products are found below :

619691C MCH4017-TL-H MMBT-2369-TR BC546/116 BC557/116 BSW67A NJVMJD148T4G NTE123AP-10 NTE153MCP NTE16 NTE195A NTE92 C4460 2N4401-A 2N6728 2SA1419T-TD-H 2SA2126-E 2SB1204S-TL-E 2SC2712S-GR,LF 2SC5488A-TL-H 2SD2150T100R SP000011176 2N2907A 2N3904-NS 2N5769 2SC2412KT146S 2SD1816S-TL-E CPH6501-TL-E MCH4021-TL-E MJE340 US6T6TR NJL0281DG 732314D CPH3121-TL-E CPH6021-TL-H 873787E IMZ2AT108 UMX21NTR MCH6102-TL-E NJL0302DG 2N3583 30A02MH-TL-E NSV40301MZ4T1G NTE13 NTE26 NTE282 NTE323 NTE350 NTE81 STX83003-AP